UNIÓN INTERNACIONAL DE TELECOMUNICACIONES

UIT-T Q.836.1

(02/2000)

SECTOR DE NORMALIZACIÓN
DE LAS TELECOMUNICACIONES
DE LA UIT

SERIE Q: CONMUTACIÓN Y SEÑALIZACIÓN

Especificaciones del sistema de señalización N.° 7 – Interfaz Q3

Modelo de información de gestión de la función de conmutación de servicio

Recomendación UIT-T Q.836.1

(Anteriormente Recomendación del CCITT)

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RECOMENDACIÓN UIT-T Q.836.1

MODELO DE INFORMACIÓN DE GESTIÓN DE LA FUNCIÓN DE CONMUTACIÓN DE SERVICIO

Resumen

La presente Recomendación forma parte de una serie que trata de la gestión de entidades funcionales de la red inteligente. Se formulará una Recomendación para cada entidad funcional. Esta Recomendación especifica el modelo de información de gestión de la función de conmutación de servicio (SSF).

Orígenes

La Recomendación UIT-T Q.836.1 ha sido preparada por la Comisión de Estudio 4 (1997-2000) del UIT-T y fue aprobada por el procedimiento de la Resolución 1 de la CMNT el 4 de febrero de 2000.

PREFACIO

La UIT (Unión Internacional de Telecomunicaciones) es el organismo especializado de las Naciones Unidas en el campo de las telecomunicaciones. El UIT-T (Sector de Normalización de las Telecomunicaciones de la UIT) es un órgano permanente de la UIT. Este órgano estudia los aspectos técnicos, de explotación y tarifarios y publica Recomendaciones sobre los mismos, con miras a la normalización de las telecomunicaciones en el plano mundial.

La Conferencia Mundial de Normalización de las Telecomunicaciones (CMNT), que se celebra cada cuatro años, establece los temas que han de estudiar las Comisiones de Estudio del UIT-T, que a su vez producen Recomendaciones sobre dichos temas.

La aprobación de Recomendaciones por los Miembros del UIT-T es el objeto del procedimiento establecido en la Resolución 1 de la CMNT.

En ciertos sectores de la tecnología de la información que corresponden a la esfera de competencia del UIT-T, se preparan las normas necesarias en colaboración con la ISO y la CEI.

NOTA

En esta Recomendación, la expresión "Administración" se utiliza para designar, en forma abreviada, tanto una administración de telecomunicaciones como una empresa de explotación reconocida de telecomunicaciones.

PROPIEDAD INTELECTUAL

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Recomendación Q.836.1

MODELO DE INFORMACIÓN DE GESTIÓN DE LA FUNCIÓN DE CONMUTACIÓN DE SERVICIO

1 Alcance

La presente Recomendación especifica el modelo de información para la gestión de la funcionalidad de red inteligente proporcionada en la función de conmutación de servicio (SSF, *service switching function*). En el plano funcional físico, las estructuras de datos determinadas por este modelo pueden residen en cualquier sistema físico [elemento de red (NE, *network element*)] que realice la función de conmutación de servicio, por ejemplo, punto de conmutación de servicio (SSP, *service switching point*) o punto de control de conmutación de servicio (SSCP, *service switching control point*).

La presente Recomendación define:

– los objetos gestionados y atributos, acciones, notificaciones y comportamiento asociados;

– las vinculaciones de nombres;

– las plantillas GDMO y la sintaxis ASN.1 asociada utilizadas para especificar el modelo de información; y

– la representación de la información de gestión en la interfaz Q3 entre el sistema que soporta la función de conmutación de servicio y el sistema de gestión.

La presente Recomendación no define:

– la implementación interna de las estructuras de datos utilizadas para representar el modelo de información en el sistema físico.

2 Referencias

Las siguientes Recomendaciones del UIT-T y otras referencias contienen disposiciones que, mediante su referencia en este texto, constituyen disposiciones de la presente Recomendación. Al efectuar esta publicación, estaban en vigor las ediciones indicadas. Todas las Recomendaciones y otras referencias son objeto de revisiones por lo que se preconiza que los usuarios de esta Recomendación investiguen la posibilidad de aplicar las ediciones más recientes de las Recomendaciones y otras referencias citadas a continuación. Se publica periódicamente una lista de las Recomendaciones UIT-T actualmente vigentes.

– Recomendación UIT-T Q.1236 (1999), *Conjunto de capacidades 3 de red inteligente – Requisitos del modelo de información de gestión y metodología*.

2.1 Referencias normativas

– ETSI ES 201 386 Ver.1.1.1 (1999), *Telecommunications Management Network (TMN); Service Switching Function (SSF) management information model*.

3 Definiciones

En esta Recomendación se definen los términos siguientes.

3.1 asistente: Si se requiere una funcionalidad SRF pero no se dispone de un SRP apropiado en el SSP, la llamada se reenvía a un segundo SSP, el "SSP asistente", que tenga una SRF adecuada. La señalización a este SRP se retransmite vía el SSP asistente.

3.2 control de características de servicio basado en red inteligente: Se trata del control del procesamiento de las características de un servicio de red inteligente (RI) especificado. Utiliza direcciones de señalización para invocar asociaciones con puntos de control de conmutación (SCP).

3.3 activador de red inteligente; disparador de red inteligente: Mecanismo para decidir bajo qué condiciones se ha de suspender un procesamiento de llamada normal y se ha de activar el control de las características de servicio basado en red inteligente (RI).

3.4 clave de servicio: Identificación abstracta de la lógica de servicio. En esta Recomendación, sólo se utiliza el concepto de clave de servicio "lógica".

Otros términos utilizados en esta Recomendación se definen en la serie de Recomendaciones Q.12xx relativas al conjunto de capacidades 1 de red inteligente (CS-1 de RI).

4 Abreviaturas

En esta Recomendación se utilizan las siguientes siglas.

ACSE Elemento de servicio de control de asociación (*association control service element*)

AE Entidad de aplicación (*application entity*)

AP Proceso de aplicación (*application process*)

ASN.1 Notación de sintaxis abstracta uno (*abstract syntax notation one*)

BCSM Modelo de estados de llamada básica (*basic call state model*)

CMIP Protocolo común de información de gestión (*common management information protocol*)

CMISE Elemento de servicio común de información de gestión (*common management information service element*)

INAP Protocolo de aplicación de red inteligente (*intelligent network application protocol*)

MOC Clase de objeto gestionado (*managed object class*)

NE Elemento de red (*network element*)

OS Sistema de operaciones (*operations system*)

OSI Interconexión de sistemas abiertos (*open systems interconnection*)

PU-RDSI Parte usuario de la red digital de servicios integrados

RGT Red de gestión de las telecomunicaciones

SCF Función de control de conmutación (*switching control function*)

SCP Punto de control de conmutación (*switching control point*)

SE elemento de servicio de aplicación (*application-service-element*)

SMASE Elemento de servicio de aplicación de gestión de sistemas (*systems management application service element*)

SRF Función de recurso especial (*special resource function*)

SRP Punto de recurso especial (*special resource point*)

SSF Función de conmutación de servicio (*service switching function*)

SSP Punto de conmutación de servicio (*service switching point*)

TDP Punto de detección de activador (*trigger detection point*)

UIT Unión Internacional de Telecomunicaciones

UIT-T Unión Internacional de Telecomunicaciones – Sector de Normalización de las Telecomunicaciones

5 Requisitos

5.1 Aspectos funcionales de gestión

La presente Recomendación abarca los siguientes aspectos de gestión de la SSF.

5.1.1 Gestión de averías

- Informar restablecimiento automático.

5.1.2 Gestión de configuración

- Telecargar datos de activación.

  Los siguientes datos son configurables para cada activación:
  - tipo de activación;
  - encaminamiento a la SCF;
  - clave de servicio;
  - control de congestión (acción que se ha de ejecutar en caso de sobrecarga de la SCF):
    a) terminar llamada;
    b) reproducir anuncio;
    c) alternar ruta.
- Modificar datos de activación.
- Suprimir datos de activación.
- Bloquear y desbloquear tablas de activación.

5.1.3 Gestión de contabilidad

Queda en estudio.

5.1.4 Gestión de la calidad de funcionamiento

- Supervisar espaciamientos de llamadas por ejemplo:
  - número de llamadas bloqueadas por espaciamiento de llamadas;
  - número de llamadas bloqueadas por tipo de espaciamiento de llamadas.
- Gestionar parámetros de espaciamiento de llamadas:
  - tipo de espaciamiento de llamadas (manual, sobrecarga de la SCF, sobrecarga de destinos, etc.);
  - estado de espaciamiento de llamadas;
  - criterios de espaciamiento de llamadas (por ejemplo, región llamante, región llamada, parte llamante, parte llamada);
  - intervalo de duración de espaciamiento;
  - tratamiento de llamadas espaciadas (por ejemplo, anuncio, tono de ocupado).
- Mediciones de tráfico, por ejemplo:
  - número de llamadas infructuosas por abandono del llamante, fallo de la SSF o fallo de la SCF;
  - número de llamadas fructuosas;

– número de indagaciones enviadas a la SCF;
– tiempo de espera medio por llamada.

5.1.5 Gestión de la seguridad

Queda en estudio.

5.2 Requisitos operacionales

Los requisitos operacionales que ha de satisfacer esta especificación se describen en la Recomendación Q.1236, que proporciona requisitos detallados para la funcionalidad identificada a continuación. El modelo de información especificado en la presente Recomendación se ha dividido en fases y actualmente el requisito identificado como OR9 en dicha Recomendación Q.1236 no se satisface en este modelo de información, porque OR9 requeriría acceder a información de tasación durante la progresión de la llamada y para soportar esta capacidad habría que introducir una complejidad que no es posible soportar en estos momentos.

5.2.1 Introducción

Se definen los siguientes requisitos operacionales:

- Configurar activación de control de características de servicio basados en RI.
- Arrancar espaciamiento de llamadas.
- Detener espaciamiento de llamadas.
- Leer criterio de espaciamiento vigentes.
- Configurar valores por defecto (espaciamiento de llamadas).
- Configurar SRF/SCF retransmitiendo capacidades de la SSF.
- Configurar SRF asistente.
- Configurar parámetros por defecto (servicio de filtrado).
- Leer servicio de filtrado.
- Configurar un conjunto de datos de origen de establecimiento de llamada para llamada iniciada por la SCF.
- Leer datos de origen de establecimiento de llamada definidos vigentes para llamada iniciada por la SCF.
- Configurar tasación de RI.
- Configurar tratamiento de errores.
- Arrancar contadores de mediciones de INAP.
- Detener contadores de mediciones de INAP.
- Leer contadores de mediciones de INAP vigentes.

6 Modelo de información – Visión general

6.1 Modelo de relaciones de clases de objetos gestionados

6.1.1 Relaciones entre "Configurar SRF/SCF retransmitiendo capacidades" y "Configurar SRF asistente"

Véase la figura 1.

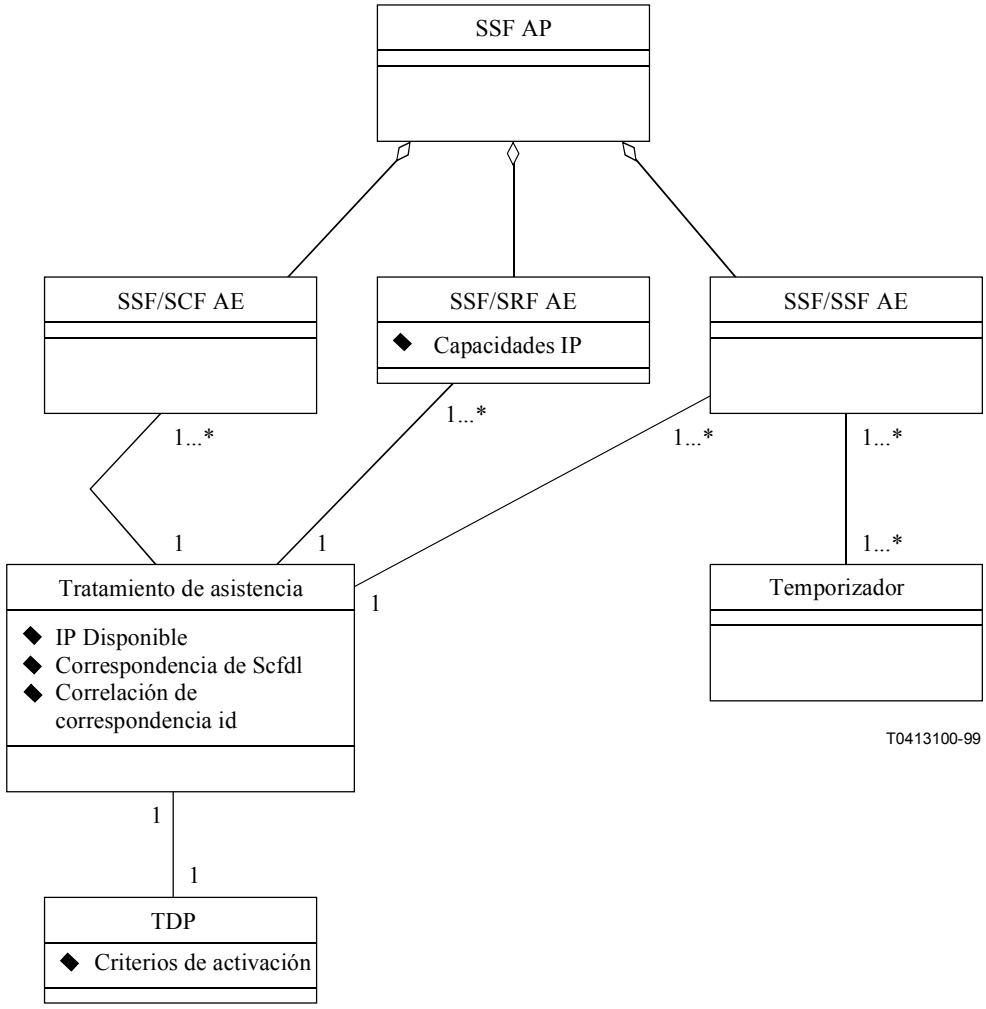


Figura 1/Q.836.1 – Relaciones entre "Configurar SRF/SCF retrasmitiendo capacidades" y "Configurar SRF asistente"

6.1.2 Descripciones de objetos gestionados

6.1.2.1 Proceso de aplicación SSF

Descripción general

La MOC proceso de aplicación SSF representa todos los posibles procesos de SSF asociados con las interfaces SSF-SCF, SSF-SRF y SSF-SSF. Todas las entidades de aplicación están contenidas en esta clase, es decir, el conjunto de mensajes INAP.

6.1.2.2 Entidad de aplicación SSF/SRF

Descripción general

La MOC entidad de aplicación SSF/SRF representa el conjunto de mensajes INAP definido para la interfaz SSF-SRF. Tiene una relación de muchos a uno con la MOC tratamiento de asistencia.

Atributos

- Capacidades IP: describen el tipo de interacción de prestaciones posibles mediante la SRF.

6.1.2.3 Entidad de aplicación SSF/SCF

Descripción general

La MOC entidad de aplicación SSF/SCF representa el conjunto de mensajes INAP definido para la interfaz SSF-SCF. Tiene una relación de muchos a uno con la MOC tratamiento de asistencia.

6.1.2.4 Entidad de aplicación SSF/SSF

Descripción general

La MOC entidad de aplicación SSF/SSF representa el conjunto de mensajes INAP definido para la interfaz SSF-SSF. Estos mensajes serán puestos en sobre en la parte usuario de la RDSI.

6.1.2.5 Tratamiento de asistencia

Descripción general

La MOC tratamiento de asistencia representa el conjunto de operaciones contenidas en las entidades de aplicación SSR/SRF y SSF/SCF. Tiene un a relación de uno a uno con la MOC TDP.

Atributos

- El IP disponible especifica la SRF que está disponible y las prestaciones que puede soportar.
- La correspondencia de Id de SCF se utiliza para identificar la SCF a la cual se enviará la MOC tratamiento de asistencia.
- El Id de correlación se utiliza para identificar la llamada que está relacionada con la asociación SRF.

6.1.2.6 TDP

Descripción general

La MOC TDP se utiliza para describir en qué condiciones el procesamiento de llamada normal tiene que ser suspendido y es activado el control de prestaciones de servicios basados en RI. Tiene una relación de uno a uno con la MOC tratamiento de asistencia.

Atributos

- Los criterios de activación representan las condiciones que inician la activación.

6.1.2.7 Temporizador

Descripción general

La MOC temporizador representa el temporizador que se fija en el momento de la asociación entre las SSF controladora y la asistente. El temporizador es controlado y reiniciado si es necesario por la SSF controladora.

6.2 Jerarquía de herencia

Véase la figura 2.

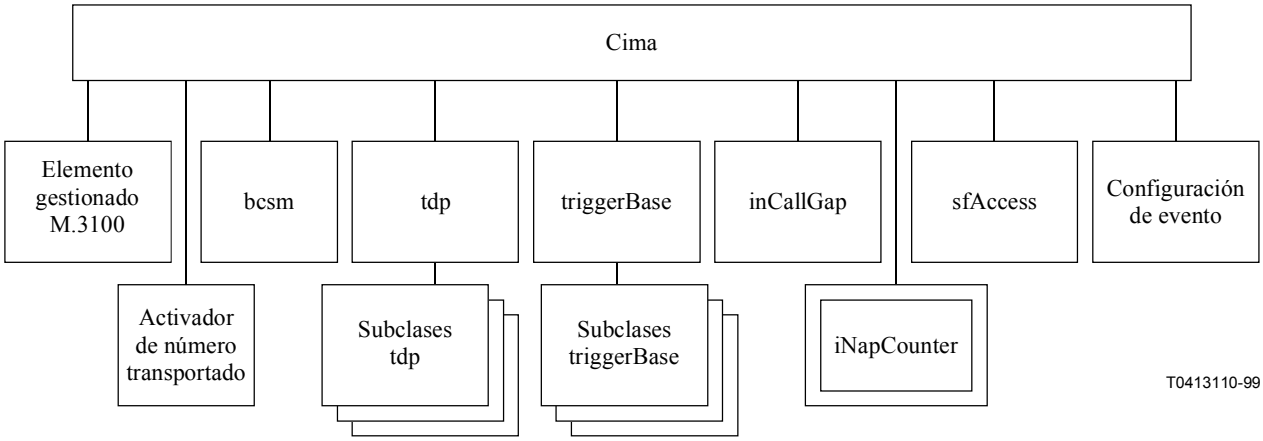


Figura 2/Q.836.1 – Jerarquía de herencia

6.3 Jerarquía de denominación

Véase la figura 3.

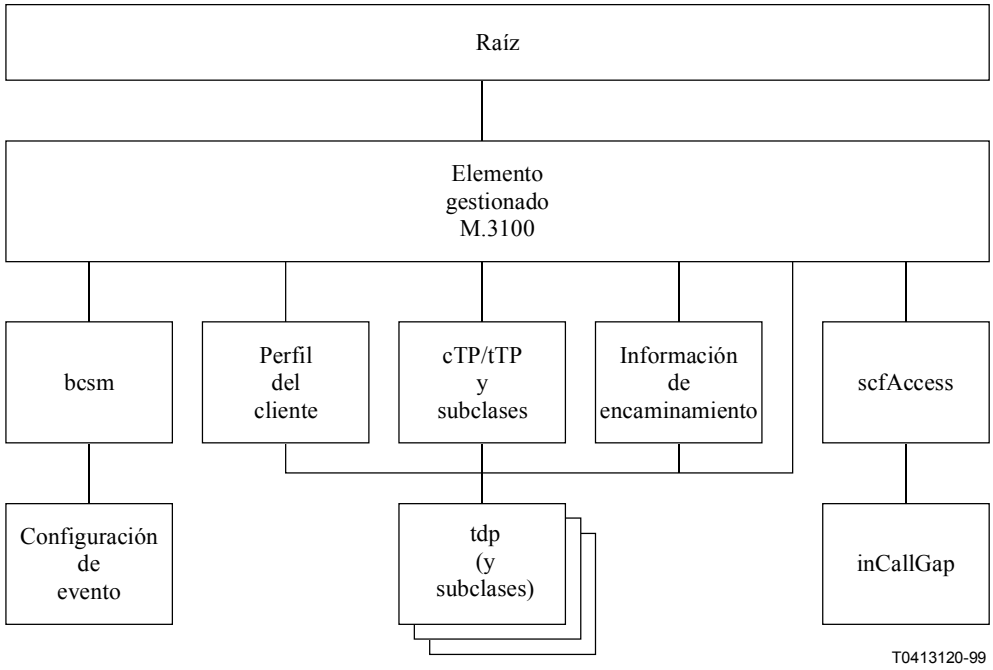


Figura 3/Q.836.1 – Jerarquía de denominación

7 Definiciones de clases de objetos gestionados

7.1 Autorización de RI (IN Authorization)

inAuthorization **MANAGED OBJECT CLASS**

DERIVED FROM "Recommendation X.721 : 1992": top;

CHARACTERIZED BY

inAuthorizationPackage **PACKAGE**

BEHAVIOUR

inAuthorizationBehaviour BEHAVIOUR

DEFINED AS "This object class is used to support IN features offered to customers from remote exchanges. The inAuthorization managed object is associated with trunk- or office-based triggers to identify the customers who have access to the IN capabilities.";;

ATTRIBUTES

inAuthorizationId GET;;;

REGISTERED AS {inSSFManagedObjectClass 101};

inAuthorizationOriginating **MANAGED OBJECT CLASS**

DERIVED FROM inAuthorization;

CHARACTERIZED BY

inAuthorizationOriginatingPackage **PACKAGE**

BEHAVIOUR

inAuthorizationOriginatingBehaviour BEHAVIOUR

DEFINED AS "This object class is used to authorize the use of originating triggers or trigger bases by individual customers. This managed object class may only be associated with originating side triggers or trigger bases.

This object is only used to associate triggers to customers in remote exchanges. For line based (customer profile based) triggers the association to a particular directory number is established via the trigger criteria in the appropriate trigger object.";;

ATTRIBUTES

authenticationCode SET-BY-CREATE, -- Replaceable but not readable.
callingPartyNumberList GET-REPLACE ADD-REMOVE;;;

REGISTERED AS {inSSFManagedObjectClass 102};

inAuthorizationTerminating **MANAGED OBJECT CLASS**

DERIVED FROM inAuthorization;

CHARACTERIZED BY

inAuthorizationTerminatingPackage **PACKAGE**

BEHAVIOUR

inAuthorizationTerminatingBehaviour BEHAVIOUR

DEFINED AS "This object class is used to authorize the use of terminating triggers or trigger bases by individual customers. This managed object class may only be associated with terminating side triggers or trigger bases.

This object is only used to associate triggers to customers in remote exchanges. For line-based (customer profile based) triggers the association to a particular directory number is established via the trigger criteria in the appropriate trigger object.";;

ATTRIBUTES
calledPartyNumberList GET-REPLACE ADD-REMOVE;;;

REGISTERED AS {inSSFManagedObjectClass 61};

7.2 Modelo de estados de la llamada básica [Basic Call State Model (BCSM)]

bcsm **MANAGED OBJECT CLASS**

DERIVED FROM "Recommendation X.721 : 1992": top;

CHARACTERIZED BY

bcsmPackage **PACKAGE**

BEHAVIOUR

bcsmBehaviour BEHAVIOUR

DEFINED AS "This object class represents the basic call processing capability.";;

ATTRIBUTES
bcsmId GET,
version GET SET-BY-CREATE;;;

REGISTERED AS {inSSFManagedObjectClass 62};

7.3 Punto de detección de activación [Trigger Detection Point (TDP)]

tdp **MANAGED OBJECT CLASS**

DERIVED FROM "Recommendation X.721 : 1992": top;

CHARACTERIZED BY

tdpPackage **PACKAGE**

BEHAVIOUR

tdpBehaviour BEHAVIOUR

DEFINED AS "This object class is a non-instantiable superclass for trigger point objects. Trigger point objects serve as launch points for the invocation of IN features.

The tdpId attribute is used as the RDN for naming.

TDPs may be of one of two types: "request" (which request that a control relation be established between the SCF and SSF and an operation may need to be performed at the SCF, the SSF may need to wait before continuing call processing) and a "notification" (which does not result in the establishment of a control relation).

The triggerAssociation attribute identifies the trigger base associated with that trigger.

The inEscape attribute defines a set of conditions that will cause escape from IN feature invocation and result in normal call processing.

The congestionAction attribute defines the action to be taken when the SCF is overloaded and IN service requests cannot be processed in a timely manner. Possible actions are termination of the call, playing of an announcement with subsequent termination or playing announcement with user option of continuing the call.

The serviceKey attribute defines which IN service will be activated in response to this trigger.

The administrative attribute may be used to administratively lock a trigger; this results in the trigger becoming inactive. Only the locked and unlocked state values are used (shutting-down is not meaningful in this context).";;

ATTRIBUTES

tdpId	GET,
tdpMode	GET-REPLACE,
triggerAssociation	GET-REPLACE,
inEscape	GET-REPLACE,
congestionAction	GET-REPLACE,
serviceKey	GET-REPLACE,
"ITU-T Rec. X.735":administrativeState	GET-REPLACE;;;

REGISTERED AS {inSSFManagedObjectClass 63};

7.4 Origen activación intento autorizado (Originating Attempt Authorized Trigger)

o_Attempt_Authorized **MANAGED OBJECT CLASS**

DERIVED FROM tdp;

CHARACTERIZED BY

o_Attempt_AuthorizedPackage **PACKAGE**

BEHAVIOUR

o_Attempt_AuthorizedBehaviour BEHAVIOUR

DEFINED AS "This object class is a subclass of tdp. It is used to trigger IN control at point in call O_NULL & Authorize_Origination_Attempt when a seizure event was accepted. Triggering may be unconditional or dependent on trigger criteria.

The attribute tdp1Criteria indicates whether the trigger is conditional or unconditional. If the trigger is conditional, the tdp1Criteria attribute contains the logical expression that specifies the applicable criteria.

For trunk-based triggers only callingPartyNumber and bearerCapability are allowed.

For subscriber- (customer profile) based triggers only classOfService is allowed.";;

ATTRIBUTES

tdp1Criteria	GET-REPLACE;;;

REGISTERED AS {inSSFManagedObjectClass 1};

7.5 Activación información recopilada (Collected Information Trigger)

collected_InfoTrigger **MANAGED OBJECT CLASS**

DERIVED FROM tdp;

CHARACTERIZED BY

collected_InfoPackage **PACKAGE**

BEHAVIOUR

collected_InfoBehaviour BEHAVIOUR

DEFINED AS "This object class is a subclass of tdp. It is used to trigger IN control at point in call collect Information as dialled digits are received. Triggering might be unconditional or dependent on trigger criteria.

The attribute tdp2Criteria indicates whether the trigger is conditional or unconditional. If the trigger is conditional, the tdp2Criteria attribute contains the logical expression that specifies the applicable criteria.

Valid parameters in the tdp2Criteria construct include: calledPartyNumber, callingPartyNumber, digitString and stringLength.";;

ATTRIBUTES

tdp2Criteria	GET-REPLACE;;;

REGISTERED AS {inSSFManagedObjectClass 2};

7.6 Activación información analizada (Analysed Information Trigger)

analysed_InfoTrigger **MANAGED OBJECT CLASS**

DERIVED FROM tdp;

CHARACTERIZED BY

analysed _InfoPackage **PACKAGE**

BEHAVIOUR

analysed _InfoBehaviour BEHAVIOUR

DEFINED AS "This object class is a subclass of tdp. It is used to trigger IN control at point in call Analyse Information when the exchange analyses the received digits. Triggering may be unconditional or dependent on trigger criteria.

The attribute tdp3Criteria indicates whether the trigger is conditional or unconditional. If the trigger is conditional, the tdp3Criteria attribute contains the logical expression that specifies the applicable criteria.

Valid parameters in the tdp3Criteria construct include: calledPartyNumber, callingPartyNumber, natureOfAddress, digitString, stringLength, facilityInformation and featureActivation.";;

ATTRIBUTES

tdp3Criteria GET-REPLACE;;;

REGISTERED AS {inSSFManagedObjectClass 3};

7.7 Activación fallo selección de ruta (Route Select Failure Trigger)

route_Select_FailureTrigger **MANAGED OBJECT CLASS**

DERIVED FROM tdp;

CHARACTERIZED BY

route_Select_FailurePackage **PACKAGE**

BEHAVIOUR

route_Select_FailureBehaviour BEHAVIOUR

DEFINED AS "This object class is a subclass of tdp. It is used to trigger IN control at point in call Routing_&_Alerting when the call fails due to a route select failure. Triggering may be unconditional or dependent on trigger criteria.

The attribute tdp4Criteria indicates whether the trigger is conditional or unconditional. If the trigger is conditional, the tdp4Criteria attribute contains the logical expression that specifies the applicable criteria.

Valid parameters in the tdp4Criteria construct include: cause, callingPartyNumber, and featureActivation.";;

ATTRIBUTES

tdp4Criteria GET-REPLACE;;;

REGISTERED AS {inSSFManagedObjectClass 4};

7.8 Origen activación parte llamada ocupada (Originating Called Party Busy Trigger)

o_Called_Party_BusyTrigger **MANAGED OBJECT CLASS**

DERIVED FROM tdp;

CHARACTERIZED BY

o_Called_Party_BusyPackage **PACKAGE**

BEHAVIOUR

o_Called_Party_BusyBehaviour BEHAVIOUR

DEFINED AS "This object class is a subclass of tdp. It is used to trigger IN control at point in call Routing_&_Alerting when the call encounters a busy condition. Triggering may be unconditional or dependent on trigger criteria.

The attribute tdp5Criteria indicates whether the trigger is conditional or unconditional. If the trigger is conditional, the tdp5Criteria attribute contains the logical expression that specifies the applicable criteria.

Valid parameters in the tdp5Criteria construct include: cause and featureActivation.";;

ATTRIBUTES

tdp5Criteria GET-REPLACE;;;

REGISTERED AS {inSSFManagedObjectClass 5};

7.9 Origen activación ausencia de respuesta (Originating No Answer Trigger)

o_No_AnswerTrigger **MANAGED OBJECT CLASS**

DERIVED FROM tdp;

CHARACTERIZED BY

o_No_AnswerPackage **PACKAGE**

BEHAVIOUR

o_No_AnswerBehaviour BEHAVIOUR

DEFINED AS "This object class is a subclass of tdp. It is used to trigger IN control at point in call Routing_&_Alerting when the call encounters a no-answer condition. Triggering may be unconditional or dependent on trigger criteria.

The attribute tdp6Criteria indicates whether the trigger is conditional or unconditional. If the trigger is conditional, the tdp6Criteria attribute contains the logical expression that specifies the applicable criteria.

Valid parameters in the tdp6Criteria construct include: cause and featureActivation.";;

ATTRIBUTES

tdp6Criteria GET-REPLACE;;;

REGISTERED AS {inSSFManagedObjectClass 6};

7.10 Origen activación respuesta (Originating Answer Trigger)

o_AnswerTrigger **MANAGED OBJECT CLASS**

DERIVED FROM tdp;

CHARACTERIZED BY

o_AnswerPackage **PACKAGE**

BEHAVIOUR

o_ AnswerBehaviour BEHAVIOUR

DEFINED AS "This object class is a subclass of tdp. It is used to trigger IN control at point in call O_Active when the call is answered. Triggering may be unconditional or dependent on trigger criteria.

The attribute tdp7Criteria indicates whether the trigger is conditional or unconditional. If the trigger is conditional, the tdp7Criteria attribute contains the logical expression that specifies the applicable criteria.

Valid parameters in the tdp7Criteria construct include: facilityInformation and featureActivation.";;

ATTRIBUTES
tdp7Criteria GET-REPLACE;;;

REGISTERED AS {inSSFManagedObjectClass 7};

7.11 Origen activación en mitad de llamada (Originating Mid Call Trigger)

o_Mid_CallTrigger **MANAGED OBJECT CLASS**

DERIVED FROM tdp;

CHARACTERIZED BY

o_Mid_CallPackage **PACKAGE**

BEHAVIOUR

o_Mid_CallBehaviour BEHAVIOUR

DEFINED AS "This object class is a subclass of tdp. It is used to trigger IN control at point in call O_Active when feature activation is invoked in the active state of the call. Triggering may be unconditional or dependent on trigger criteria.

The attribute tdp8Criteria indicates whether the trigger is conditional or unconditional. If the trigger is conditional, the tdp8Criteria attribute contains the logical expression that specifies the applicable criteria.

Valid parameters in the tdp8Criteria construct include: facilityInformation and featureActivation.";;

ATTRIBUTES
tdp8Criteria GET-REPLACE;;;

REGISTERED AS {inSSFManagedObjectClass 8};

7.12 Origen activación desconexión (Originating Disconnect Trigger)

o_DisconnectTrigger **MANAGED OBJECT CLASS**

DERIVED FROM tdp;

CHARACTERIZED BY

o_DisconnectPackage **PACKAGE**

BEHAVIOUR

o_DisconnectBehaviour BEHAVIOUR

DEFINED AS "This object class is a subclass of tdp. It is used to trigger IN control at point in call O_Active when a disconnect occurs. Triggering may be unconditional or dependent on trigger criteria.

The attribute tdp9Criteria indicates whether the trigger is conditional or unconditional. If the trigger is conditional, the tdp9Criteria attribute contains the logical expression that specifies the applicable criteria.

Valid parameters in the tdp9Criteria construct include: cause and featureActivation.";;

ATTRIBUTES
tdp9Criteria GET-REPLACE;;;

REGISTERED AS {inSSFManagedObjectClass 9};

7.13 Origen activación abandono (Originating Abandon Trigger)

o_AbandonTrigger **MANAGED OBJECT CLASS**

DERIVED FROM tdp;

CHARACTERIZED BY

o_AbandonPackage **PACKAGE**

BEHAVIOUR

o_AbandonBehaviour BEHAVIOUR

DEFINED AS "This object class is a subclass of tdp. It is used to trigger IN control at points in call when a call abandon occurs. Triggering may be unconditional or dependent on trigger criteria.

The attribute tdp10Criteria indicates whether the trigger is conditional or unconditional. If the trigger is conditional, the tdp10Criteria attribute contains the logical expression that specifies the applicable criteria.

Valid parameters in the tdp10Criteria construct include: cause and featureActivation.";;

ATTRIBUTES

tdp10Criteria GET-REPLACE;;;

REGISTERED AS {inSSFManagedObjectClass 10};

7.14 Terminación activación intento autorizado (Terminating Attempt Authorized Trigger)

t_Attempt_Authorized **MANAGED OBJECT CLASS**

DERIVED FROM tdp;

CHARACTERIZED BY

t_Attempt_AuthorizedPackage **PACKAGE**

BEHAVIOUR

t_Attempt_AuthorizedBehaviour BEHAVIOUR

DEFINED AS "This object class is a subclass of tdp. It is used to trigger IN control at point in call T_NULL & Authorize_Termination_Attempt when a seizure event was accepted. Triggering may be unconditional or dependent on trigger criteria.

The attribute tdp12Criteria indicates whether the trigger is conditional or unconditional. If the trigger is conditional, the tdp12Criteria attribute contains the logical expression that specifies the applicable criteria.

Valid parameters in the tdp12Criteria construct include: callingPartyNumber and featureActivation.";;

ATTRIBUTES

tdp12Criteria GET-REPLACE;;;

REGISTERED AS {inSSFManagedObjectClass 12};

7.15 Terminación activación parte llamada ocupada (Terminating Called Party Busy Trigger)

t_Called_Party_BusyTrigger **MANAGED OBJECT CLASS**

DERIVED FROM tdp;

CHARACTERIZED BY

t_Called_Party_BusyPackage **PACKAGE**

BEHAVIOUR

t_Called_Party_BusyBehaviour BEHAVIOUR

DEFINED AS "This object class is a subclass of tdp. It is used to trigger IN control at point in call Select_Facility_&_Present_Call when the call encounters a busy condition. Triggering may be unconditional or dependent on trigger criteria.

The attribute tdp13Criteria indicates whether the trigger is conditional or unconditional. If the trigger is conditional, the tdp13Criteria attribute contains the logical expression that specifies the applicable criteria.

Valid parameters in the tdp13Criteria construct include: cause, callingPartyNumber and featureActivation.";;

ATTRIBUTES
tdp13Criteria GET-REPLACE;;;

REGISTERED AS {inSSFManagedObjectClass 13};

7.16 Terminación activación ausencia de respuesta (Terminating No Answer Trigger)

t_No_AnswerTrigger **MANAGED OBJECT CLASS**

DERIVED FROM tdp;

CHARACTERIZED BY

t_No_AnswerPackage **PACKAGE**

BEHAVIOUR

t_No_AnswerBehaviour BEHAVIOUR

DEFINED AS "This object class is a subclass of tdp. It is used to trigger IN control at point in call Select_Facility_&_Present_Call when the call encounters a no-answer condition. Triggering may be unconditional or dependent on trigger criteria.

The attribute tdp14Criteria indicates whether the trigger is conditional or unconditional. If the trigger is conditional, the tdp14Criteria attribute contains the logical expression that specifies the applicable criteria.

Valid parameters in the tdp14Criteria construct include: cause, callingPartyNumber and featureActivation.";;

ATTRIBUTES
tdp14Criteria GET-REPLACE;;;

REGISTERED AS {inSSFManagedObjectClass 14};

7.17 Terminación activación respuesta (Terminating Answer Trigger)

t_AnswerTrigger **MANAGED OBJECT CLASS**

DERIVED FROM tdp;

CHARACTERIZED BY

t_AnswerPackage **PACKAGE**

BEHAVIOUR

t_ AnswerBehaviour BEHAVIOUR

DEFINED AS "This object class is a subclass of tdp. It is used to trigger IN control at point in call T_Active when the call is answered. Triggering may be unconditional or dependent on trigger criteria.

The attribute tdp15Criteria indicates whether the trigger is conditional or unconditional. If the trigger is conditional, the tdp15Criteria attribute contains the logical expression that specifies the applicable criteria.

Valid parameters in the tdp15Criteria construct include: facilityInformation and featureActivation.";;

ATTRIBUTES
tdp15Criteria GET-REPLACE;;;

REGISTERED AS {inSSFManagedObjectClass 15};

7.18 Terminación activación en mitad de llamada (Terminating Mid Call Trigger)

t_Mid_CallTrigger **MANAGED OBJECT CLASS**

DERIVED FROM tdp;

CHARACTERIZED BY

o_Mid_CallPackage **PACKAGE**

BEHAVIOUR

t_Mid_CallBehaviour BEHAVIOUR

DEFINED AS "This object class is a subclass of tdp. It is used to trigger IN control at point in call T_Active when feature activation is invoked in the active state of the call. Triggering may be unconditional or dependent on trigger criteria.

The attribute tdp16Criteria indicates whether the trigger is conditional or unconditional. If the trigger is conditional, the tdp16Criteria attribute contains the logical expression that specifies the applicable criteria.

Valid parameters in the tdp16Criteria construct include: facilityInformation and featureActivation.";;

ATTRIBUTES

tdp16Criteria GET-REPLACE;;;

REGISTERED AS {inSSFManagedObjectClass 16};

7.19 Terminación activación desconexión (Terminating Disconnect Trigger)

t_DisconnectTrigger **MANAGED OBJECT CLASS**

DERIVED FROM tdp;

CHARACTERIZED BY

t_DisconnectPackage **PACKAGE**

BEHAVIOUR

t_DisconnectBehaviour BEHAVIOUR

DEFINED AS "This object class is a subclass of tdp. It is used to trigger IN control at point in call T_Active when a disconnect occurs. Triggering may be unconditional or dependent on trigger criteria.

The attribute tdp17Criteria indicates whether the trigger is conditional or unconditional. If the trigger is conditional, the tdp17Criteria attribute contains the logical expression that specifies the applicable criteria.

Valid parameters in the tdp17Criteria construct include: cause and featureActivation.";;

ATTRIBUTES

tdp17Criteria GET-REPLACE;;;

REGISTERED AS {inSSFManagedObjectClass 17};

7.20 Terminación activación abandono (Terminating Abandon Trigger)

t_AbandonTrigger **MANAGED OBJECT CLASS**

DERIVED FROM tdp;

CHARACTERIZED BY

t_AbandonPackage **PACKAGE**

BEHAVIOUR

t_AbandonBehaviour BEHAVIOUR

DEFINED AS "This object class is a subclass of tdp. It is used to trigger IN control at points in call when a call abandon occurs. Triggering may be unconditional or dependent on trigger criteria.

The attribute tdp18Criteria indicates whether the trigger is conditional or unconditional. If the trigger is conditional, the tdp18Criteria attribute contains the logical expression that specifies the applicable criteria.

Valid parameters in the tdp18Criteria construct include: cause and featureActivation.";;

ATTRIBUTES

tdp18Criteria	GET-REPLACE;;;

REGISTERED AS {inSSFManagedObjectClass 18};

7.21 Base de activación (Trigger Base)

triggerBase **MANAGED OBJECT CLASS**

DERIVED FROM "Recommendation X.721 : 1992": top;

CHARACTERIZED BY

triggerBasePackage **PACKAGE**

BEHAVIOUR

triggerBaseBehaviour BEHAVIOUR

DEFINED AS "This object class is used to define an association between a set of triggers and the scope of these triggers, e.g. Originating Line, Terminating Line, Originating Trunk, Terminating Trunk, Private Facility, Office (Analysed Info Base).

The triggerBaseId attribute is used for naming.

The associatedObject attribute is a pointer to the object instance with which the trigger base is associated.

The basePriority attribute allows specification of which triggerList will be active when several would apply simultaneously to a call.

The trigger list is a prioritized list of trigger objects that will apply to a call. The triggers that may be contained in this list will be constrained by the behaviour of subclasses of this object class.

The administrative attribute may be used to administratively lock a trigger-base; this results in the trigger-base becoming inactive, thereby deactivating all triggers associated with that base. Only the locked and unlocked state values are used (shutting-down is not meaningful in this context).";;

ATTRIBUTES

triggerBaseId	GET,
associatedObject	GET SET-BY-CREATE,
basePriority	GET-REPLACE,
triggerList	GET-REPLACE ADD-REMOVE,
"ITU-T Rec. X.735":administrativeState	GET-REPLACE;;;

REGISTERED AS {inSSFManagedObjectClass 21};

7.22 Origen base activación de línea (Originating Line Trigger Base)

o_lineTriggerBase **MANAGED OBJECT CLASS**

DERIVED FROM triggerBase;

CHARACTERIZED BY

o_lineTriggerBasePackage **PACKAGE**

BEHAVIOUR

o_lineTriggerBaseBehaviour BEHAVIOUR

DEFINED AS "The triggerList attribute of this object class is constrained to triggers of type (see Rec. Q.1241) 1,2,3,4,5,6 and 8.";;;;

REGISTERED AS {inSSFManagedObjectClass 22};

7.23 Origen base activación de circuito troncal (Originating Trunk Trigger Base)

o_trunkTriggerBase **MANAGED OBJECT CLASS**

DERIVED FROM triggerBase;

CHARACTERIZED BY

o_trunkTriggerBasePackage **PACKAGE**

BEHAVIOUR

o_trunkTriggerBehaviour BEHAVIOUR

DEFINED AS "The triggerList attribute of this object class is constrained to triggers of type (see Rec. Q.1241) 1,2,3,4,5,6 and 8.";;;;

REGISTERED AS {inSSFManagedObjectClass 23};

7.24 Terminación base activación de línea (Terminating Line Trigger Base)

t_lineTriggerBase **MANAGED OBJECT CLASS**

DERIVED FROM triggerBase;

CHARACTERIZED BY

t_lineTriggerBasePackage **PACKAGE**

BEHAVIOUR

t_lineTriggerBaseBehaviour BEHAVIOUR

DEFINED AS "The triggerList attribute of this object class is constrained to triggers of type (see Rec. Q.1241) 12,13,14 and 16.";;;;

REGISTERED AS {inSSFManagedObjectClass 24};

7.25 Terminación base activación de línea troncal de terminación (Terminating Trunk Trigger Base)

t_trunkTriggerBase **MANAGED OBJECT CLASS**

DERIVED FROM triggerBase;

CHARACTERIZED BY

t_trunkTriggerBasePackage **PACKAGE**

BEHAVIOUR

t_trunkTriggerBaseBehaviour BEHAVIOUR

DEFINED AS "The triggerList attribute of this object class is constrained to triggers of type (see Rec. Q.1241) 12,13,14 and 16.";;;;

REGISTERED AS {inSSFManagedObjectClass 25};

7.26 Base activación de facilidad privada (Private Facility Trigger Base)

privateFacilityTriggerBase **MANAGED OBJECT CLASS**

DERIVED FROM triggerBase;

CHARACTERIZED BY

privateFacilityBasePackage **PACKAGE**

BEHAVIOUR

privateFacilityBaseBehaviour BEHAVIOUR

DEFINED AS "The triggerList attribute of this object class may contain triggers of any type (see Rec. Q.1241).";;;;

REGISTERED AS {inSSFManagedObjectClass 26};

7.27 Base activación de oficina (Office Trigger Base)

officeTriggerBase **MANAGED OBJECT CLASS**

DERIVED FROM triggerBase;

CHARACTERIZED BY

officeTriggerBasePackage **PACKAGE**

BEHAVIOUR

officeTriggerBaseBehaviour BEHAVIOUR

DEFINED AS "The triggerList attribute of this object class may contain triggers of type (see Rec. Q.1241) 3-18.";;;;

REGISTERED AS {inSSFManagedObjectClass 27};

7.28 Espaciamiento de llamadas RI (IN Call Gap)

inCallGap **MANAGED OBJECT CLASS**

DERIVED FROM "Recommendation X.721 : 1992": top;

CHARACTERIZED BY

inCallGapPackage **PACKAGE**

BEHAVIOUR

inCallGapBehaviour BEHAVIOUR

DEFINED AS "This object class defines the OSF defined call gapping criteria.

The inCallGapId attribute is used as the RDN for naming.

The gapCriteria attribute allows configuring criteria for the calls to be gapped. Calls may be gapped for particular destinations, particular services or both.

The gapDuration attribute specifies the time interval for which gapping is active.

The gapInterval attribute specifies the minimum inter-arrival time between calls that will be passed.

The controlType attribute indicates how call gapping was activated. Call gapping may be activated by the SCP or the OSF.

The gapTreatment attribute specifies the treatment to be given to calls that have been gapped.

The administrative attribute may be used to administratively lock a inCallGap object.";;

ATTRIBUTES

inCallGapId	GET,
gapCriteria	GET-REPLACE,
gapDuration	GET-REPLACE,
gapInterval	GET-REPLACE,
controlType	GET-REPLACE,
gapTreatment	GET-REPLACE,
"ITU-T Rec. X.735":administrativeState	GET-REPLACE;;;

REGISTERED AS {inSSFManagedObjectClass 28};

7.29 Servicio de filtrado (Service Filtering)

serviceFiltering **MANAGED OBJECT CLASS**

DERIVED FROM "Recommendation X.721 : 1992": top;

CHARACTERIZED BY

serviceFilteringPackage **PACKAGE**

BEHAVIOUR

serviceFilteringBehaviour BEHAVIOUR

DEFINED AS "This object class is used to specify how IN calls are to be filtered. It contains the criteria for filtering and specifies the treatment of filtered calls.

The object is created by the SSF as a result of the receipt of an activateServiceFiltering operation from the SCF.

- If the filteringCriteria attribute in the received operation has the value serviceKey, the filtering will be activated for that particular service and the serviceFiltering object will be associated with that particular service.
- If the filteringCriteria attribute in the received operation has the value dialledNumber or callingPartyNumber, the filtering will be activated for the particular services associated with the calling party or dialled number.

The SCF specifies that the network-dependent default duration is to be used by setting the attribute *duration* to "-2".

This object instance is automatically deleted when the stopTime is reached or when duration expires. Prior to deletion, the objectId, filteringCriteria and the countersValues are passed to the INAP ASE to be used in the INAP *serviceFilteringResponse* operation.

The serviceFilterId attribute is used as the RDN for naming.

The startTime attribute specifies the time at which service filtering will be or is started.

The stopTime attribute specifies the time at which service filtering will be stopped. If the incoming message specified a duration, the stop time is derived by adding the duration to the start time. If default timing was specified in the incoming request the stopTime will be set at the time this object instance is created by adding the default duration (specified in the serviceFilteringDefaultDuration object) to the specified start time.

NOTE – This implies that changes to the default duration made subsequent to creation of this object instance will have no effect on the stopTime.

The releaseCause specifies the release cause to be used for filtered calls.

The billingChargingCharacteristics attribute specifies the charging to be applied to filtered calls.

The filteredCallTreatment attribute specifies the treatment to be given to calls that have been filtered, e.g. inBandInfo, tone, etc.;;

ATTRIBUTES

serviceFilterId	GET,
startTime	GET,
stopTime	GET,
releaseCause	GET,
billingChargingCharacteristics	GET,
filteredCallTreatment	GET;;;

CONDITIONAL PACKAGES

TimeBasedFilteringPackage**PACKAGE**
timeBasedFilteringPackageBhvr **BEHAVIOUR**
"This package specifies that all calls an interval of at least "interval" must pass between calls that invoke SCF service logic";;

ATTRIBUTES

interval GET-REPLACE;

REGISTERED AS { inSSFPackage 1}; PRESENT IF "the incoming activateServiceFiltering message specified time based filtering",

countBasedFilteringPackage**PACKAGE**

countBasedFilteringPackageBhvr **BEHAVIOUR**

"This package specifies that only every nth call will be sent to the SFC where N is numberOfCalls + 1";;

ATTRIBUTES

numberOfCalls GET-REPLACE;

REGISTERED AS { inSSFPackage 2}; PRESENT IF "the incoming activateServiceFiltering message specified time based filtering",

countersPackage **PACKAGE**

countersPackageBhvr **BEHAVIOUR**

"This package specifies the maximum number of counters to be used and provides pointers to the counters used";;

ATTRIBUTES

maximumNumberofCounters GET,

counterPointerList GET;

REGISTERED AS { inSSFPackage 3}; PRESENT IF "the incoming activateServiceFiltering message specified the use of counters",

;;

REGISTERED AS {inSSFManagedObjectClass 29};

7.30 Contador de servicio de filtrado (Service Filtering Counter)

serviceFilteringCounter **MANAGED OBJECT CLASS**

DERIVED FROM "Recommendation X.721 : 1992": top;

CHARACTERIZED BY

serviceFilteringCounterPackage **PACKAGE**

BEHAVIOUR

serviceFilteringCounterBehaviour BEHAVIOUR

DEFINED AS "This object counts calls that have been subjected to service filtering. The counterValue attribute contains the count and is automatically reset whenever the SSF sends a serviceFilteringResponse for that service filter.

The associatedServiceFilter attribute points to the serviceFilter for which this counter is active.";;

ATTRIBUTES

serviceFilteringCounterId GET,

counterValue GET,

associatedServiceFilter GET;;;

REGISTERED AS {inSSFManagedObjectClass 30};

NOTE – Do we need to model how counters are used. I.e. what causes one or another counter to be incremented.

7.31 Valor supletorio de duración del servicio de filtrado (Service Filtering Duration Default)

serviceFilteringDurationDefault **MANAGED OBJECT CLASS**

DERIVED FROM "Recommendation X.721 : 1992": top;

CHARACTERIZED BY

serviceFilteringDurationDefaultPackage **PACKAGE**

BEHAVIOUR

serviceFilteringDurationDefaultBehaviour BEHAVIOUR

DEFINED AS "This object class stores the default duration to be used for service filtering. This value is stored in the interval attribute.";;

ATTRIBUTES

serviceFilteringDurationDefaultId	GET,
interval	GET-REPLACE;;;

REGISTERED AS {inSSFManagedObjectClass 31};

7.32 Información supletoria para iniciar llamada (Initiate Call Default Information)

initiateCallDefaultInformation **MANAGED OBJECT CLASS**

DERIVED FROM "Recommendation X.721 : 1992": top;

CHARACTERIZED BY

initiateCallDefaultInformationPackage **PACKAGE**

BEHAVIOUR

initiateCallDefaultInformationBehaviour BEHAVIOUR

DEFINED AS "This object class stores the default information to be used in setting up a call when the SCF provides incomplete call-setup information in the initiateCallAttempt operation.";;

ATTRIBUTES

initiateCallDefaultInformationId	GET,
callingPartyNumber	GET-REPLACE,
callingPartyCategory	GET- REPLACE,
forwardCallIndicators	GET- REPLACE,
natureOfConnectionIndicator	GET- REPLACE,
bearerService	GET-REPLACE;;;

REGISTERED AS {inSSFManagedObjectClass 32};

7.33 Contador INAP (INAP Counter)

iNAPCounter **MANAGED OBJECT CLASS**

DERIVED FROM "Recommendation X.721 : 1992": top;

CHARACTERIZED BY

iNAPCounterPackage **PACKAGE**

BEHAVIOUR

iNAPCounterBehaviour BEHAVIOUR

DEFINED AS "This object class provides the capability for counting particular events that occur in association with the use of INAP.

The attribute observedEventId specifies the semantics of the events counted by this particular counter. This value cannot be changed after the counter has been instantiated.

The attribute observedSCFAccessList identifies the SCF accesses that are being observed by this counter.

The attribute count contains the number of times the event has occurred since the last time the counter was zeroed."

NOTE – Do we want to allow resets?;;

ATTRIBUTES

iNAPCounterId	GET,
observedEventId	GET SET-BY-CREATE,
observedSCFAccessList	GET SET-BY-CREATE,
administrativeState	GET-REPLACE,
count	GET SET-BY-CREATE;;;

REGISTERED AS {inSSFManagedObjectClass 33};

7.34 Control prestaciones de servicios (Service Feature Control)

serviceFeatureControl **MANAGED OBJECT CLASS**

DERIVED FROM "Recommendation X.721 : 1992": top;

CHARACTERIZED BY

servicefeatureControl Package **PACKAGE**

BEHAVIOUR

servicefeatureControl Behaviour BEHAVIOUR

DEFINED AS "The serviceFeatureControl managed object represents the capability of controlling an IN service.

The serviceFeatureControlId Attribute is used as the RDN.

The serviceKey attribute identifies the service to be invoked.

The administrativeState indicates whether the IN service has been administratively disabled.

The defaultCharging attribute specifies how charging is to be applied if no instructions are received from the SCF.

The chargingProfile attribute specifies the type of record to be generated if this is not clear from the context of the call or from the instructions received from the SCF.

The iNAPASE attribute identifies the INAP ASE to be associated with that service.

The sCFAccessPointer attribute identifies the sCFAccess to which INAP messages for this service are to be sent.

The processingInstructions attribute specifies the default values for feature control, e.g. that IN-IN interworking is not allowed.

The exceptionHandling attribute specifies the actions to be taken by the SSF if invocation of the IN service logic fails.";;

ATTRIBUTES

serviceFeatureControlId	GET,
serviceKey	GET-REPLACE,
administrativeState	GET-REPLACE,
defaultCharging	GET-REPLACE,
chargingProfile	GET-REPLACE,
iNAPASE	GET-REPLACE,
sCFAccessPointer	GET-REPLACE,
processingInstructions	GET-REPLACE,
routeListMapping	GET-REPLACE,
exceptionHandling	GET-REPLACE;;;

REGISTERED AS {inSSFManagedObjectClass 34};

7.35 Acceso a SCF (SCF Access)

scfAccess **MANAGED OBJECT CLASS**

DERIVED FROM "Recommendation X.721 : 1992": top;

CHARACTERIZED BY

scfAccessPackage **PACKAGE**

BEHAVIOUR

scfAccessBehaviour BEHAVIOUR

DEFINED AS "The scfAccess managed object identifies the SCF access to be used for particular services and is used as a single point of reference for data items used for IN service control.

The scfAccessId Attribute is used as the RDN.";;

ATTRIBUTES

scfAccessId GET;;;

REGISTERED AS {inSSFManagedObjectClass 35};

7.36 Acceso a SCF basado en códigos de punto (SCF Access Point Code Based)

scfAccessPointCodeBased **MANAGED OBJECT CLASS**

DERIVED FROM scfAccess;

CHARACTERIZED BY

scfAccessPointCodeBasedPackage **PACKAGE**

BEHAVIOUR

scfAccessPointCodeBased Behaviour BEHAVIOUR

DEFINED AS "The scfAccessPointCodeBased managed object identifies the SCF access by means of point codes.

The dPCPointer attribute points to an object of class mtpSignPoint that identifies the destination point code to be used.

The oPCPointer attribute points to an object of class mtpSignPoint that identifies the origination point code to be used.

The sSIDPointer attribute points to an object of class sccpAccessPoint that identifies the subsystem id to be used.";;

ATTRIBUTES

dPCPointer GET-REPLACE,
oPCPointer GET-REPLACE,
sSIDPointer GET-REPLACE;;;

REGISTERED AS {inSSFManagedObjectClass 36};

7.37 Acceso a SCF basado en título global (SCF Global Title Based)

scfAccessGlobalTitleBased **MANAGED OBJECT CLASS**

DERIVED FROM scfAccess;

CHARACTERIZED BY

scfAccessGlobalTitleBasedPackage **PACKAGE**

BEHAVIOUR

scfAccessGlobalTitleBased Behaviour BEHAVIOUR

DEFINED AS "The scfAccessPointCodeBased managed object identifies the SCF access by means of point codes.

The globalTitleRulePtr attribute points to an object of class gtRule.

The sCPAddress attribute

The sSIDPointer attribute points to an object of class sccpAccessPoint that identifies the subsystem id to be used.";;

ATTRIBUTES

globalTitleRulePtr GET-REPLACE,
sCPAddress GET-REPLACE,
sSIDPointer GET-REPLACE;;;

REGISTERED AS {inSSFManagedObjectClass 37};

7.38 Configuración de IP (IP Configuration)

iPConfiguration **MANAGED OBJECT CLASS**

DERIVED FROM "Recommendation X.721 : 1992": top;

CHARACTERIZED BY

iPConfigurationPackage **PACKAGE**

BEHAVIOUR

scfAccessGlobalTitleBased Behaviour BEHAVIOUR

DEFINED AS "The iPConfigurationId managed object specifies the capabilities of an IP and its availability.

The iPConfigurationId is used in forming the RDN.

The operationalState attribute specifies whether the IP is enabled.

The administrativeState specifies whether the IP is locked or unlocked.

The iPCapabilityList attribute describes the functional capabilities of the IP; e.g. tone generation, speech synthesis, etc.";;

ATTRIBUTES

iPConfigurationId	GET,
"Recommendation X.721 : 1992":administrativeState	GET-REPLACE,
"Recommendation X.721 : 1992":operationalState	GET-REPLACE,
iPCapabilityList	GET-REPLACE;;;

REGISTERED AS {inSSFManagedObjectClass 38};

7.39 Configuración de asistencia a tratamiento (Assist Treatment Configuration)

assistTreatmentConfiguration **MANAGED OBJECT CLASS**

DERIVED FROM "Recommendation X.721 : 1992": top;

CHARACTERIZED BY

assistTreatmentConfigurationPackage **PACKAGE**

BEHAVIOUR

assistTreatmentConfigurationBehaviour BEHAVIOUR

DEFINED AS "The assistTreatmentConfiguration managed object the way in which the assisting SSF should determine how to manipulate information to be sent in the assistRequestInstruction (ARI) message and the SCF access to which the ARI is to be sent.

The assistTreatmentConfigurationId is used in forming the RDN.

The digitStringToCorrelationIdMapping attribute specifies how to map the received digit string to the correlationId to be used in the ARI message so that the SCF can correlate the ARI with its ETC (establishTemporaryConnection) message.

The digitStringToScfIdMapping specifies the mapping from the received digitString to the sCFId so that the SSF can identify the SCP with which it has to communicate in order to receive assist instructions.

The sCFAccessPtr attribute identifies the sCFAccess to be used for communicating with the previously identified SCP.";;

ATTRIBUTES

assistTreatmentConfigurationId	GET,
digitStringToCorrelationIdMapping	GET-REPLACE,
digitStringToScfIdMapping	GET-REPLACE,
sCFAccessPtr	GET-REPLACE;;;

REGISTERED AS {inSSFManagedObjectClass 39};

7.40 Activación número transportado (Ported Number Trigger)

portedNumberTrigger **MANAGED OBJECT CLASS**

DERIVED FROM "Recommendation X.721 : 1992": top;

CHARACTERIZED BY

portedNumberTriggerPackage **PACKAGE**

BEHAVIOUR

portedNumberTriggerBehaviour BEHAVIOUR

DEFINED AS "The portedNumberTrigger managed object specifies the length of the dialled digits string on which the decision to check for a ported number is made.";;

ATTRIBUTES

portedNumberTriggerId	GET SET-BY-CREATE,
serviceKey	GET SET-REPLACE,
dialledDigitLength	GET-REPLACE;;;

REGISTERED AS {inSSFManagedObjectClass 40};

7.41 Lista de números transportados (Ported Number List)

portedNumberList **MANAGED OBJECT CLASS**

DERIVED FROM "Recommendation X.721 : 1992": top;

CHARACTERIZED BY

portedNumberListPackage **PACKAGE**

BEHAVIOUR

portedNumberListBehaviour BEHAVIOUR

DEFINED AS "The portedNumberList managed object specifies the list of dialled digits of the terminating address for which the exchange has to check for additional routing information.";;

ATTRIBUTES

portedNumberListId	GET SET-BY-CREATE,
terminatingDialDigitsList	GET-REPLACE;;;

REGISTERED AS {inSSFManagedObjectClass 41};

7.42 Datos INAP vigentes (INAP Current Data)

iNAPCurrentData **MANAGED OBJECT CLASS**

DERIVED FROM "Recommendation Q.822": currentData;

CHARACTERIZED BY

iNAPCurrentDataPackage **PACKAGE**

BEHAVIOUR

iNAPCurrentDataBehaviour BEHAVIOUR

DEFINED AS "This object class provides the capability for counting particular events that occur in a given time period in association with the use of INAP. Also, the threshold attribute allows thresholding of the count during the time interval. If the threshold is exceeded, a notification is emitted. Detailed behavioural description is found in the superclass definition.

The attribute observedEventId specifies the semantics of the events counted by this particular object.

The attribute observedSCFAccessList identifies the SCF accesses that are being observed by this object.

The attribute count contains the number of times the event has occurred during the time interval.";;

ATTRIBUTES

observedEventId	GET SET-BY-CREATE,
observedSCFAccessList	GET SET-BY-CREATE,
count	GET;;;

REGISTERED AS {inSSFManagedObjectClass 42};

7.43 Datos históricos INAP (INAP History Data)

iNAPHistoryData **MANAGED OBJECT CLASS**

DERIVED FROM "Recommendation Q.822": historyData;

CHARACTERIZED BY

iNAPHistoryDataPackage **PACKAGE**

BEHAVIOUR

iNAPHistoryDataBehaviour BEHAVIOUR

DEFINED AS "This object class provides the capability for storing the content of previous iNAPCurrentData. objectsDetailed behavioural description is found in the superclass definition.

The attribute observedEventId specifies the semantics of the events counted by this particular object.

The attribute observedSCFAccessList identifies the SCF accesses that are being observed by this object.

The attribute count contains the number of times the event has occurred during the time interval."

ATTRIBUTES

observedEventId	GET SET-BY-CREATE,
observedSCFAccessList	GET SET-BY-CREATE,
count	GET;;;

REGISTERED AS {inSSFManagedObjectClass 43};

7.44 Tasación por defecto (Default Charging)

defaultCharging **MANAGED OBJECT CLASS**

DERIVED FROM "Recommendation X.721": top;

CHARACTERIZED BY

defaultChargingPackage **PACKAGE**

BEHAVIOUR

defaultChargingBehaviour BEHAVIOUR

DEFINED AS "This object class defines the default action to be taken if no specific charging information is supplied for the IN call. The default action may be service dependent."

ATTRIBUTES

defaultChargingId	GET SET-BY-CREATE,
defaultChargingAction	GET-REPLACE;;;

REGISTERED AS {inSSFManagedObjectClass 44};

7.45 Manipulador de excepciones (Exception Handler)

exceptionHandler **MANAGED OBJECT CLASS**

DERIVED FROM "Recommendation X.721": top;

CHARACTERIZED BY

exceptionHandlerPackage **PACKAGE**

BEHAVIOUR

exceptionHandlerBehaviour BEHAVIOUR

DEFINED AS "This object class defines the action to be taken by the SSF as default treatment when an error occurs in call processing."

ATTRIBUTES

exceptionHandlerId	GET SET-BY-CREATE,
missingCustomerRecordException	GET-REPLACE,
missingParameterException	GET-REPLACE,
systemFailureException	GET-REPLACE,
taskRefusedException	GET-REPLACE,
unexpectedValueException	GET-REPLACE,
unexpectedparameterException	GET-REPLACE,
unexpectedValueException	GET-REPLACE,
unexpectedComponentSequenceException	GET-REPLACE;

NOTIFICATIONS

callProcessingException;;;

REGISTERED AS {inSSFManagedObjectClass 45};

[NOTE – Do we want OA&M alarms generated by this]

7.46 Temporizador SSF (SSF Timer)

sSFTimer **MANAGED OBJECT CLASS**

DERIVED FROM "Recommendation X.721": top;

CHARACTERIZED BY

defaultChargingPackage **PACKAGE**

BEHAVIOUR

sSFTimerBehaviour BEHAVIOUR

DEFINED AS "This object class defines the value of the timer T_{SSF}"

ATTRIBUTES

sSFTimerId	GET SET-BY-CREATE,
timerValue	GET-REPLACE;;;

REGISTERED AS {inSSFManagedObjectClass 46};

7.47 Entidad de aplicación SCF (SCF Application Entity)

scfApplicationEntity **MANAGED OBJECT CLASS**

DERIVED FROM "Recommendation M.3100": software;

CHARACTERIZED BY

scfApplicationEntityPackage **PACKAGE**

BEHAVIOUR

scfApplicationEntityBehaviour BEHAVIOUR

DEFINED AS "This object class represents the SCF application process.";;;

REGISTERED AS {inSSFManagedObjectClass 47};

7.48 Entidad de aplicación SSF (SSF Application Entity)

ssfApplicationEntity **MANAGED OBJECT CLASS**

DERIVED FROM "Recommendation M.3100": software;

CHARACTERIZED BY

ssfApplicationEntityPackage **PACKAGE**

BEHAVIOUR

ssfApplicationEntityBehaviour BEHAVIOUR

DEFINED AS "This object class represents the SSF application process.";;;

REGISTERED AS {inSSFManagedObjectClass 48};

8 Definiciones de lotes

No se definen lotes condicionales externos.

9 Definiciones de atributos

9.1 Atributo bcsmId

bcsmId ATTRIBUTE
WITH ATTRIBUTE SYNTAX NameType;
MATCHES FOR EQUALITY;
BEHAVIOUR
bcsmIdBhvr BEHAVIOUR
DEFINED AS "This attribute is used as the RDN attribute for naming.";;

REGISTERED AS {inSSFattribute 1};

9.2 Atributo tdpId

tdpId ATTRIBUTE
WITH ATTRIBUTE SYNTAX NameType;
MATCHES FOR EQUALITY;
BEHAVIOUR
tdpIdBhvr BEHAVIOUR
DEFINED AS "This attribute is used as the RDN attribute for naming.";;

REGISTERED AS {inSSFattribute 2};

9.3 Atributo tdpMode

tdpMode ATTRIBUTE
WITH ATTRIBUTE SYNTAX SSFASN1Module.TdpMode;
MATCHES FOR EQUALITY;
BEHAVIOUR
tdpModeBhvr BEHAVIOUR

DEFINED AS "This attribute specifies whether the TDP is configured as a request or notification TDP.
NOTE – In some cases only one particular mode may be valid for a TDP. This will be specified in the appropriate subclass.";;

REGISTERED AS {inSSFattribute 3};

9.4 Atributo tdp1Criteria

tdp1Criteria ATTRIBUTE
WITH ATTRIBUTE SYNTAX TDP1Filter;
MATCHES FOR EQUALITY;
BEHAVIOUR
tdp1CriteriaBhvr BEHAVIOUR
DEFINED AS "This attribute specifies criteria that will cause a triggering of an IN service. It is structured syntactically as a filter in order to allow formulation of complex trigger conditions based on the combination of various predicates. The criteria may include calling party number, bearer capability and class of service.";;

REGISTERED AS {inSSFattribute 4};

9.5 Atributo tdp2Criteria

tdp2Criteria ATTRIBUTE
WITH ATTRIBUTE SYNTAX TDP2Filter;
MATCHES FOR EQUALITY;
BEHAVIOUR
tdp2CriteriaBhvr BEHAVIOUR
DEFINED AS "This attribute specifies criteria that will cause a triggering of an IN service. It is structured syntactically as a filter in order to allow formulation of complex trigger conditions based on the combination of various predicates. The criteria may include calledPartyNumber, callingPartyNumber, digitString and stringLength.";;

REGISTERED AS {inSSFattribute 5};

9.6 Atributo tdp3Criteria

tdp3Criteria ATTRIBUTE
WITH ATTRIBUTE SYNTAX TDP3Filter;
MATCHES FOR EQUALITY;
BEHAVIOUR
tdp3CriteriaBhvr BEHAVIOUR
DEFINED AS "This attribute specifies criteria that will cause a triggering of an IN service. It is structured syntactically as a filter in order to allow formulation of complex trigger conditions based on the combination of various predicates. The criteria may include calledPartyNumber, callingPartyNumber, natureOfAddress, digitString, stringLength, facilityInformation and featureActivation.";;

REGISTERED AS {inSSFattribute 6};

9.7 Atributo tdp4Criteria

tdp4Criteria ATTRIBUTE
WITH ATTRIBUTE SYNTAX TDP4Filter;
MATCHES FOR EQUALITY;
BEHAVIOUR
tdp4CriteriaBhvr BEHAVIOUR
DEFINED AS "This attribute specifies criteria that will cause a triggering of an IN service. It is structured syntactically as a filter in order to allow formulation of complex trigger conditions based on the combination of various predicates. The criteria may include cause, callingPartyNumber, and featureActivation.";;

REGISTERED AS {inSSFattribute 7};

9.8 Atributo tdp5Criteria

tdp5Criteria ATTRIBUTE
WITH ATTRIBUTE SYNTAX TDP5Filter;
MATCHES FOR EQUALITY;
BEHAVIOUR
tdp5CriteriaBhvr BEHAVIOUR

DEFINED AS "This attribute specifies criteria that will cause a triggering of an IN service. It is structured syntactically as a filter in order to allow formulation of complex trigger conditions based on the combination of various predicates. The criteria may include cause and featureActivation.";;

REGISTERED AS {inSSFattribute 8};

9.9 Atributo tdp6Criteria

tdp6Criteria ATTRIBUTE
WITH ATTRIBUTE SYNTAX TDP6Filter;
MATCHES FOR EQUALITY;
BEHAVIOUR
tdp6CriteriaBhvr BEHAVIOUR
DEFINED AS "This attribute specifies criteria that will cause a triggering of an IN service. It is structured syntactically as a filter in order to allow formulation of complex trigger conditions based on the combination of various predicates. The criteria may include cause and featureActivation.";;

REGISTERED AS {inSSFattribute 9};

9.10 Atributo tdp7Criteria

tdp7Criteria ATTRIBUTE
WITH ATTRIBUTE SYNTAX TDP7Filter;
MATCHES FOR EQUALITY;
BEHAVIOUR
tdp7CriteriaBhvr BEHAVIOUR
DEFINED AS "This attribute specifies criteria that will cause a triggering of an IN service. It is structured syntactically as a filter in order to allow formulation of complex trigger conditions based on the combination of various predicates. The criteria may include facilityInformation and featureActivation.";;

REGISTERED AS {inSSFattribute 10};

9.11 Atributo tdp8Criteria

tdp8Criteria ATTRIBUTE
WITH ATTRIBUTE SYNTAX TDP8Filter;
MATCHES FOR EQUALITY;
BEHAVIOUR
tdp8CriteriaBhvr BEHAVIOUR
DEFINED AS "This attribute specifies criteria that will cause a triggering of an IN service. It is structured syntactically as a filter in order to allow formulation of complex trigger conditions based on the combination of various predicates. The criteria may include facilityInformation and featureActivation.";;

REGISTERED AS {inSSFattribute 11};

9.12 Atributo tdp9Criteria

tdp9Criteria ATTRIBUTE
WITH ATTRIBUTE SYNTAX TDP9Filter;
MATCHES FOR EQUALITY;
BEHAVIOUR
tdp9CriteriaBhvr BEHAVIOUR
DEFINED AS "This attribute specifies criteria that will cause a triggering of an IN service. It is structured syntactically as a filter in order to allow formulation of complex trigger conditions based on the combination of various predicates. The criteria may include cause and featureActivation.";;

REGISTERED AS {inSSFattribute 12};

9.13 Atributo tdp10Criteria

```
tdp10Criteria ATTRIBUTE
        WITH ATTRIBUTE SYNTAX TDP10Filter;
        MATCHES FOR EQUALITY;
        BEHAVIOUR
        tdp10CriteriaBhvr BEHAVIOUR
        DEFINED AS "This attribute specifies criteria that will cause a triggering of an IN service. It is structured
                syntactically as a filter in order to allow formulation of complex trigger conditions based on the
                combination of various predicates. The criteria may include cause and featureActivation.";;

REGISTERED AS {inSSFattribute 13};
```

9.14 Atributo tdp12Criteria

```
tdp12Criteria ATTRIBUTE
        WITH ATTRIBUTE SYNTAX TDP12Filter;
        MATCHES FOR EQUALITY;
        BEHAVIOUR
        tdp12CriteriaBhvr BEHAVIOUR
        DEFINED AS "This attribute specifies criteria that will cause a triggering of an IN service. It is structured
                syntactically as a filter in order to allow formulation of complex trigger conditions based on the
                combination of various predicates. The criteria may include classOfService and
                callingPartyNumber.";;

REGISTERED AS {inSSFattribute 14};
```

9.15 Atributo tdp13Criteria

```
tdp13Criteria ATTRIBUTE
        WITH ATTRIBUTE SYNTAX TDP13Filter;
        MATCHES FOR EQUALITY;
        BEHAVIOUR
        tdp13CriteriaBhvr BEHAVIOUR
        DEFINED AS "This attribute specifies criteria that will cause a triggering of an IN service. It is structured
                syntactically as a filter in order to allow formulation of complex trigger conditions based on the
                combination of various predicates. The criteria may include featureActivation and
                callingPartyNumber.";;

REGISTERED AS {inSSFattribute 15};
```

9.16 Atributo tdp14Criteria

```
tdp14Criteria ATTRIBUTE
        WITH ATTRIBUTE SYNTAX TDP14Filter;
        MATCHES FOR EQUALITY;
        BEHAVIOUR
        tdp14CriteriaBhvr BEHAVIOUR
        DEFINED AS "This attribute specifies criteria that will cause a triggering of an IN service. It is structured
                syntactically as a filter in order to allow formulation of complex trigger conditions based on the
                combination of various predicates. The criteria may include featureActivation and
                callingPartyNumber.";;

REGISTERED AS {inSSFattribute 16};
```

9.17 Atributo tdp15Criteria

```
tdp15Criteria ATTRIBUTE
        WITH ATTRIBUTE SYNTAX TDP15Filter;
        MATCHES FOR EQUALITY;
        BEHAVIOUR
        tdp15CriteriaBhvr BEHAVIOUR
```

DEFINED AS "This attribute specifies criteria that will cause a triggering of an IN service. It is structured syntactically as a filter in order to allow formulation of complex trigger conditions based on the combination of various predicates. The criteria may include facilityInformation and featureActivation.";;

REGISTERED AS {inSSFattribute 17};

9.18 Atributo tdp16Criteria

tdp16Criteria ATTRIBUTE
WITH ATTRIBUTE SYNTAX TDP16Filter;
MATCHES FOR EQUALITY;
BEHAVIOUR
tdp15CriteriaBhvr BEHAVIOUR
DEFINED AS "This attribute specifies criteria that will cause a triggering of an IN service. It is structured syntactically as a filter in order to allow formulation of complex trigger conditions based on the combination of various predicates. The criteria may include facilityInformation and featureActivation.";;

REGISTERED AS {inSSFattribute 18};

9.19 Atributo tdp17Criteria

tdp17Criteria ATTRIBUTE
WITH ATTRIBUTE SYNTAX TDP17Filter;
MATCHES FOR EQUALITY;
BEHAVIOUR
tdp17CriteriaBhvr BEHAVIOUR
DEFINED AS "This attribute specifies criteria that will cause a triggering of an IN service. It is structured syntactically as a filter in order to allow formulation of complex trigger conditions based on the combination of various predicates. The criteria may include cause and featureActivation.";;

REGISTERED AS {inSSFattribute 19};

9.20 Atributo tdp18Criteria

tdp18Criteria ATTRIBUTE
WITH ATTRIBUTE SYNTAX TDP18Filter;
MATCHES FOR EQUALITY;
BEHAVIOUR
tdp18CriteriaBhvr BEHAVIOUR
DEFINED AS "This attribute specifies criteria that will cause a triggering of an IN service. It is structured syntactically as a filter in order to allow formulation of complex trigger conditions based on the combination of various predicates. The criteria may include cause and featureActivation.";;

REGISTERED AS {inSSFattribute 20};

9.21 Atributo triggerAssociation

triggerAssociation ATTRIBUTE
WITH ATTRIBUTE SYNTAX SSFASN.Module.TriggerAssociation;
MATCHES FOR EQUALITY;
BEHAVIOUR
triggerAssociationBhvr BEHAVIOUR
DEFINED AS "This attribute specifies the basis on which the trigger is to be applied.";;

REGISTERED AS {inSSFattribute 21};

Editor's Note: Should this attribute be set-valued?

9.22 Atributo inEscape

```
inEscape ATTRIBUTE
        WITH ATTRIBUTE SYNTAX SSFASN.Module.INEscapes;
        MATCHES FOR EQUALITY;
        BEHAVIOUR
        inEscapeBhvr BEHAVIOUR
        DEFINED AS "This set valued attribute specifies the call related information on the basis of which escape
                from IN processing would occur.";;

REGISTERED AS {inSSFattribute 22};
```

9.23 Atributo congestionAction

```
congestionAction ATTRIBUTE
        WITH ATTRIBUTE SYNTAX SSFASN.Module.CongestionAction;
        MATCHES FOR EQUALITY;
        BEHAVIOUR
        congestionActionBhvr BEHAVIOUR
        DEFINED AS "This attribute specifies the action to be taken if the SCF cannot be reached or does not respond
                in time. Valid actions are terminate call, play announcement, play announcement and terminate
                call.";;

REGISTERED AS {inSSFattribute 23};
```

9.24 Atributo serviceKey

```
serviceKey ATTRIBUTE
        WITH ATTRIBUTE SYNTAX SSFASN.Module.ServiceKey;
        MATCHES FOR EQUALITY;
        BEHAVIOUR
        serviceKeyBhvr BEHAVIOUR
        DEFINED AS "This attribute specifies the logical service key for the IN service to be invoked.";;

REGISTERED AS {inSSFattribute 24};
```

9.25 Atributo inCallGapId

```
inCallGapId ATTRIBUTE
        WITH ATTRIBUTE SYNTAX SSFASN.Module.NameType;
        MATCHES FOR EQUALITY;
        BEHAVIOUR
        inCallGapIdBhvr BEHAVIOUR
        DEFINED AS "This attribute is used for the RDN of the inCallGap object.";;

REGISTERED AS {inSSFattribute 25};
```

9.26 Atributo gapDuration

```
gapDuration ATTRIBUTE
        WITH ATTRIBUTE SYNTAX SSFASN.Module.GapDuration;
        MATCHES FOR EQUALITY;
        BEHAVIOUR
        gapDurationBhvr BEHAVIOUR
        DEFINED AS "This attribute is used to specify the length of time for which gapping is to be applied.";;

REGISTERED AS {inSSFattribute 26};
```

9.27 Atributo gapInterval

gapInterval ATTRIBUTE
WITH ATTRIBUTE SYNTAX SSFASN.Module.GapInterval;
MATCHES FOR EQUALITY;
BEHAVIOUR
gapIntervalBhvr BEHAVIOUR
DEFINED AS "This attribute is used to specify the fraction of calls to be gapped. No gapping when the attribute is zero and gap all calls gapInterval is one.";;

REGISTERED AS {inSSFattribute 27};

9.28 Atributo gapTreatment

gapTreatment ATTRIBUTE
WITH ATTRIBUTE SYNTAX SSFASN.Module.CallTreatment;
MATCHES FOR EQUALITY;
BEHAVIOUR
gapTreatmentBhvr BEHAVIOUR
DEFINED AS "This attribute is used to specify the treatment to be applied to a gapped call. It may specify information to be sent to the calling party, release of the call with a cause value or information to be sent and subsequent release of the call.";;

REGISTERED AS {inSSFattribute 28};

9.29 Atributo digitString

digitString ATTRIBUTE
WITH ATTRIBUTE SYNTAX SSFASN.Module.DigitString;
MATCHES FOR EQUALITY;
BEHAVIOUR
digitStringBhvr BEHAVIOUR
DEFINED AS "This attribute is used to identify a digit string. In trigger point objects this digit string may be used as criterion or a part of a logical expression for invoking IN service logic.";;

REGISTERED AS {inSSFattribute 29};

9.30 Atributo authenticationCode

authenticationCode ATTRIBUTE
WITH ATTRIBUTE SYNTAX SSFASN.Module.AuthenticationCode;
MATCHES FOR EQUALITY;
BEHAVIOUR
authenticationCodeBhvr BEHAVIOUR
DEFINED AS "This attribute contains a parameter used in authenticating a user for access to data or services.";;

REGISTERED AS {inSSFattribute 30};

9.31 Atributo calledPartyNumberList

calledPartyNumberList ATTRIBUTE
WITH ATTRIBUTE SYNTAX SSFASN.Module.CalledPartyNumberList;
MATCHES FOR EQUALITY SET-COMPARISON SET-INTERSECTION;
BEHAVIOUR
calledPartyNumberListBhvr BEHAVIOUR
DEFINED AS "This attribute is a list of called party directory numbers. The list may be used as screening list.";;

REGISTERED AS {inSSFattribute 31};

9.32 Atributo callingPartyNumberList

callingPartyNumberList ATTRIBUTE
WITH ATTRIBUTE SYNTAX SSFASN.Module.CallingPartyNumberList;
MATCHES FOR EQUALITY SET-COMPARISON SET-INTERSECTION;
BEHAVIOUR
callingPartyNumberListBhvr BEHAVIOUR
DEFINED AS "This attribute is a list of calling party directory numbers. The list may be used as screening list.";;

REGISTERED AS {inSSFattribute 32};

9.33 Atributo version

version ATTRIBUTE
WITH ATTRIBUTE SYNTAX SSFASN.Module.Version;
MATCHES FOR EQUALITY ORDERING;
BEHAVIOUR
versionBhvr BEHAVIOUR
DEFINED AS "This attribute specifies the version of an entity. The data-type used to encode the version value must support ordering.";;

REGISTERED AS {inSSFattribute 33};

9.34 Atributo observedEventId

observedEventId ATTRIBUTE
WITH ATTRIBUTE SYNTAX SSFASN.Module.ObservedEventId;
MATCHES FOR EQUALITY ORDERING;
BEHAVIOUR
observedEventIdBhvr BEHAVIOUR
DEFINED AS "This attribute identifies the event that is being observed by the object in which it is installed. If this object is a counter, the count will change every time one of these events occurs.";;

REGISTERED AS {inSSFattribute 34};

9.35 Atributo observedSCFAccessList

observedSCFAccessList ATTRIBUTE
WITH ATTRIBUTE SYNTAX SSFASN.Module.ObservedSCFAccessList;
MATCHES FOR EQUALITY ORDERING SET-INTERSECTION SET-COMPARISON;
BEHAVIOUR
observedSCFAccessListBhvr BEHAVIOUR
DEFINED AS "This attribute identifies the set of SCF access to which the object is related or with which it is associated.";;

REGISTERED AS {inSSFattribute 35};

9.36 Atributo count

count ATTRIBUTE
WITH ATTRIBUTE SYNTAX SSFASN.Module.Count;
MATCHES FOR EQUALITY ORDERING;
BEHAVIOUR
countBhvr BEHAVIOUR
DEFINED AS "This is an integer count of the specified event.";;

REGISTERED AS {inSSFattribute 36};

9.37 Atributo defaultCharging

defaultCharging ATTRIBUTE
WITH ATTRIBUTE SYNTAX SSFASN.Module.DefaultCharging;
MATCHES FOR EQUALITY;
BEHAVIOUR
defaultChargingBhvr BEHAVIOUR

DEFINED AS "Services do not necessarily require that charging information be sent from the SCF to the SSF. The SSF, therefore, needs to be able to refer to a choice of default charging options. This attribute specifies the following options:

– indication that same charging level has to be used as that determined by PSTN before (single value);
– indication for setting the call to "free of charge" (single value);
– indication to reject the call (single value);
– specific charge level (set of values).";;

REGISTERED AS {inSSFattribute 37};

9.38 Atributo chargingProfile

chargingProfile ATTRIBUTE
WITH ATTRIBUTE SYNTAX SSFASN.Module.ChargingProfile;
MATCHES FOR EQUALITY;
BEHAVIOUR
chargingProfileBhvr BEHAVIOUR

DEFINED AS "IN triggering may occur before the SSP specific usage metering control function determines the kind of usage metering. In this cases the 'charging profile' of the IN service determines the kind of usage metering recording. This attribute is defined network operator specific.";;

REGISTERED AS {inSSFattribute 38};

9.39 Atributo iNAPASE

iNAPASE ATTRIBUTE
WITH ATTRIBUTE SYNTAX SSFASN.Module.ObjectInstance;
MATCHES FOR EQUALITY;
BEHAVIOUR
iNAPASEBhvr BEHAVIOUR

DEFINED AS "Associates an INAP ASE with the object that has this attribute.";;

REGISTERED AS {inSSFattribute 39};

9.40 Atributo iNEscape

iNEscape ATTRIBUTE
WITH ATTRIBUTE SYNTAX SSFASN.Module.INEscape;
MATCHES FOR EQUALITY;
BEHAVIOUR
iNEscapeBhvr BEHAVIOUR

DEFINED AS "This attribute defines a set of conditions that will cause escape from IN call processing and result in normal call processing.";;

REGISTERED AS {inSSFattribute 40};

9.41 Atributo exceptionHandling

exceptionHandling ATTRIBUTE
WITH ATTRIBUTE SYNTAX SSFASN.Module.ExceptionHandling;
MATCHES FOR EQUALITY;
BEHAVIOUR
exceptionHandlingBhvr BEHAVIOUR

DEFINED AS "This attributes contains continuation information for the call processing (e.g. intercept treatment, announcements, etc.). Includes pointers to customizable resources.";;

REGISTERED AS {inSSFattribute 41};

9.42 Atributo sCFAccessPointer

sCFAccessPointer ATTRIBUTE
WITH ATTRIBUTE SYNTAX SSFASN.Module.ObjectInstance;
MATCHES FOR EQUALITY;
BEHAVIOUR
sCFAccessPointerBhvr BEHAVIOUR

DEFINED AS "This attributes identifies the SCP to which INAP messages for this service are to be sent.";;

REGISTERED AS {inSSFattribute 42};

9.43 Atributo triggerList

triggerList ATTRIBUTE
WITH ATTRIBUTE SYNTAX SET OF ObjectInstance;
MATCHES FOR EQUALITY SET-INTERSECTION SET-COMPARISON;
BEHAVIOUR
triggerListBhvr BEHAVIOUR

DEFINED AS "This attribute associates a set of triggers to the object that has this attribute.";;

REGISTERED AS {inSSFattribute 43};

9.44 Atributo basePriority

basePriority ATTRIBUTE
WITH ATTRIBUTE SYNTAX INTEGER;
MATCHES FOR EQUALITY ORDERING;
BEHAVIOUR
basePriorityBhvr BEHAVIOUR

DEFINED AS "The basePriority attribute allows specification of which triggerList will be active when several would apply simultaneously to a call. The larger number indicates lower priority.";;

REGISTERED AS {inSSFattribute 44};

9.45 Atributo gapCriteria

gapCriteria ATTRIBUTE
WITH ATTRIBUTE SYNTAX SSFASN.Module.GapCriteria;
MATCHES FOR EQUALITY ORDERING;
BEHAVIOUR
gapCriteriaBhvr BEHAVIOUR

DEFINED AS "The gapCriteria attribute allows configuring criteria for the calls to be gapped. Calls may be gapped for particular destinations, particular services or both.";;

REGISTERED AS {inSSFattribute 45};

9.46 Atributo gapDuration

```
gapDuration ATTRIBUTE
        WITH ATTRIBUTE SYNTAX SSFASN.Module.GapDuration;
        MATCHES FOR EQUALITY ORDERING;
        BEHAVIOUR
        gapDurationBhvr BEHAVIOUR

            DEFINED AS "The gapDuration attribute specifies the time interval for which gapping is active.";;

REGISTERED AS {inSSFattribute 46};
```

9.47 Atributo gapInterval

```
gapInterval ATTRIBUTE
        WITH ATTRIBUTE SYNTAX INTEGER;
        MATCHES FOR EQUALITY ORDERING;
        BEHAVIOUR
        gapInterval Bhvr BEHAVIOUR

            DEFINED AS "The gapInterval attribute specifies the minimum inter-arrival time between calls that will
            be passed. The time is specified in milliseconds.";;

REGISTERED AS {inSSFattribute 47};
```

9.48 Atributo gapTreatment

```
gapTreatment ATTRIBUTE
        WITH ATTRIBUTE SYNTAX SSFASN.Module.CallTreatment;
        MATCHES FOR EQUALITY ORDERING;
        BEHAVIOUR
        gapTreatmentBhvr BEHAVIOUR

            DEFINED AS "The gapTreatment attribute specifies the treatment to be given to calls that have been
            gapped.";;

REGISTERED AS {inSSFattribute 48};
```

9.49 Atributo controlType

```
controlType ATTRIBUTE
        WITH ATTRIBUTE SYNTAX SSFASN.Module.ControlType;
        MATCHES FOR EQUALITY ORDERING;
        BEHAVIOUR
        controlTypeBhvr BEHAVIOUR

            DEFINED AS "The controlType attribute indicates how call gapping was activated. Call gapping may be
            activated by the SCP or the OSF.";;

REGISTERED AS {inSSFattribute 49};
```

9.50 Atributo iPCapabilityList

```
iPCapabilityList ATTRIBUTE
        WITH ATTRIBUTE SYNTAX SSFASN.Module.ControlType;
        MATCHES FOR EQUALITY;
        BEHAVIOUR
        iPCapabilityListBhvr BEHAVIOUR

        DEFINED AS "The iPCapabilityList attribute describes the functional capabilities of the IP, e.g. tone
            generation, speech synthesis, etc.";;

REGISTERED AS {inSSFattribute 50};
```

9.51 Atributo dialledDigitLength

```
dialledDigitLength  ATTRIBUTE
        WITH ATTRIBUTE SYNTAX SSFASN.Module.DialledDigitLength;
        MATCHES FOR EQUALITY ORDERING;
        BEHAVIOUR
        dialledDigitLengthBhvr BEHAVIOUR

      DEFINED AS "The dialledDigitLength specifies the number of digits on which the decision to check the
          portedNumberList is made.";;

REGISTERED AS {inSSFattribute 51};
```

9.52 Atributo terminatingDialDigitsList

```
terminatingDialDigitsList ATTRIBUTE
        WITH ATTRIBUTE SYNTAX SSFASN.Module.TerminatingDialDigitsList;
        MATCHES FOR EQUALITY;
        BEHAVIOUR
        terminatingDialDigitsListBhvr BEHAVIOUR

      DEFINED AS "The terminatingDialDigitsList attribute is a list of entries that specifies the dialled digits for
          which the exchange needs to obtain instructions on how to route the call due to possible porting of that
          number. The list consists of digit strings that if matched will cause triggering of an LNP (Local Number
          Portability) query.";;

REGISTERED AS {inSSFattribute 52};
```

9.53 Atributo defaultChargingAction

```
defaultChargingAction ATTRIBUTE
        WITH ATTRIBUTE SYNTAX SSFASN.Module.DefaultChargingAction;
        MATCHES FOR EQUALITY;
        BEHAVIOUR
        defaultChargingActionBhvr BEHAVIOUR

      DEFINED AS "The defaultChargingAction attribute defines the default action to be taken if no specific
          charging information is supplied for the IN call. The default action may be service dependent.";;

REGISTERED AS {inSSFattribute 53};
```

9.54 Atributo timerValue

```
timerValue ATTRIBUTE
        WITH ATTRIBUTE SYNTAX SSFASN.Module.TimerValue;
        MATCHES FOR EQUALITY ORDERING;
        BEHAVIOUR
        timerValueBhvr BEHAVIOUR

      DEFINED AS "The timerValue attribute specifies the amount of time that is to elapse after a particular event
          has occurred prior to the occurrence of another event. The values is specified in milliseconds.";;

REGISTERED AS {inSSFattribute 54};
```

9.55 Atributo missingCustomerRecordException

```
missingCustomerRecordException  ATTRIBUTE
        WITH ATTRIBUTE SYNTAX SSFASN.Module.INAPException;
        MATCHES FOR EQUALITY ORDERING;
        BEHAVIOUR
        missingCustomerRecordExceptionBhvr BEHAVIOUR
```

DEFINED AS "The missingCustomerRecordException attribute specifies the action to be taken if the customer record for a particular call cannot be located.";;

REGISTERED AS {inSSFattribute 55};

NOTE – Similar templates will be provided in the final edit for the following exceptions: missingParameterException, systemFailureException, taskRefusedException, unexpectedValueException, unexpectedparameterException, unexpectedValueException, unexpectedComponentSequenceException.

10 Vinculaciones de nombres

10.1 TDP a BCSM

tdp-bcsm **NAME BINDING**
SUBORDINATE OBJECT CLASS tdp **AND SUBCLASSES**;
NAMED BY
SUPERIOR OBJECT CLASS bcsm **AND SUBCLASSES** ;
WITH ATTRIBUTE tdpId;
CREATE WITH-REFERENCE-OBJECT ,
WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE
ONLY-IF-NO-CONTAINED-OBJECTS;

REGISTERED AS {inSSFNameBinding 1};

10.2 Originating Trunk Trigger Base a Configured End Point Group

o_trunkTriggerBase-cepsg **NAME BINDING**
SUBORDINATE OBJECT CLASS o_ trunkTriggerBase **AND SUBCLASSES**;
NAMED BY
SUPERIOR OBJECT CLASS cepsg **AND SUBCLASSES** ;
WITH ATTRIBUTEtriggerBaseId;
CREATE
WITH-REFERENCE-OBJECT ,
WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE
ONLY-IF-NO-CONTAINED-OBJECTS;

REGISTERED AS {inSSFNameBinding 2};

10.3 Terminating Trunk Trigger Base a Configured End Point Group

t_trunkTriggerBase-cepsg **NAME BINDING**
SUBORDINATE OBJECT CLASS t_ trunkTriggerBase **AND SUBCLASSES**;
NAMED BY
SUPERIOR OBJECT CLASS cepsg **AND SUBCLASSES** ;
WITH ATTRIBUTE triggerBaseId;
CREATE
WITH-REFERENCE-OBJECT ,
WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE
ONLY-IF-NO-CONTAINED-OBJECTS;

REGISTERED AS {inSSFNameBinding 3};

10.4 Originating Line Trigger Base a Customer Profile

o_lineTriggerBase- customerProfile **NAME BINDING**
SUBORDINATE OBJECT CLASS o_ lineTriggerBase **AND SUBCLASSES**;
NAMED BY
SUPERIOR OBJECT CLASS "Recommendation Q.824.1": customerProfile
AND SUBCLASSES ;
WITH ATTRIBUTE triggerBaseId;
CREATE
WITH-REFERENCE-OBJECT ,
WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE
ONLY-IF-NO-CONTAINED-OBJECTS;

REGISTERED AS {inSSFNameBinding 4};

10.5 Terminating Line Trigger Base a Customer Profile

t_trunkTriggerBase-customerProfile **NAME BINDING**
SUBORDINATE OBJECT CLASS t_ lineTriggerBase **AND SUBCLASSES**;
NAMED BY
SUPERIOR OBJECT CLASS "Recommendation Q.824.1": customerProfile
AND SUBCLASSES ;
WITH ATTRIBUTE triggerBaseId;
CREATE
WITH-REFERENCE-OBJECT ,
WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE
ONLY-IF-NO-CONTAINED-OBJECTS;

REGISTERED AS {inSSFNameBinding 5};

10.6 SCF Access a Managed Element

sCFAccess-managedElement **NAME BINDING**
SUBORDINATE OBJECT CLASS sCFAccess **AND SUBCLASSES**;
NAMED BY
SUPERIOR OBJECT CLASS "Recommendation M.3100": managedElement
AND SUBCLASSES ;
WITH ATTRIBUTE sCFAccessId;
CREATE
WITH-REFERENCE-OBJECT ,
WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE
ONLY-IF-NO-CONTAINED-OBJECTS;

REGISTERED AS {inSSFNameBinding 6};

10.7 BCSM a Managed Element

bcsm-managedElement **NAME BINDING**
SUBORDINATE OBJECT CLASS bcsm **AND SUBCLASSES**;
NAMED BY
SUPERIOR OBJECT CLASS "Recommendation M.3100": managedElement
AND SUBCLASSES ;
WITH ATTRIBUTE sCFAccessId;
CREATE
WITH-REFERENCE-OBJECT ,
WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE
ONLY-IF-NO-CONTAINED-OBJECTS;

REGISTERED AS {inSSFNameBinding 7};

10.8 IN Call Gap a SSF-SCF Application Entity

```
inCallGap-ssfScfAE        NAME BINDING
                  SUBORDINATE OBJECT CLASS      inCallGap       AND SUBCLASSES;
                  NAMED BY
                  SUPERIOR OBJECT CLASS ssfScfAE
                       AND SUBCLASSES ;
                  WITH ATTRIBUTE     inCallGapId;
                  CREATE
                  WITH-REFERENCE-OBJECT ,
                  WITH-AUTOMATIC-INSTANCE-NAMING;
                  DELETE
                  ONLY-IF-NO-CONTAINED-OBJECTS;

REGISTERED AS {inSSFNameBinding 8};
```

10.9 Service Filtering a Service Feature Control

```
serviceFiltering-serviceFeatureControl        NAME BINDING
                  SUBORDINATE OBJECT CLASS      serviceFiltering   AND SUBCLASSES;
                  NAMED BY
                  SUPERIOR OBJECT CLASS serviceFeatureControl AND SUBCLASSES ;
                  WITH ATTRIBUTE     serviceFilteringId;
                  CREATE
                  WITH-REFERENCE-OBJECT ,
                  WITH-AUTOMATIC-INSTANCE-NAMING;
                  DELETE
                  ONLY-IF-NO-CONTAINED-OBJECTS;

REGISTERED AS {inSSFNameBinding 9};
```

10.10 IP Configuration a Managed Element

```
iPConfiguration-managedElement   NAME BINDING
                  SUBORDINATE OBJECT CLASS      iPConfiguration   AND SUBCLASSES;
                  NAMED BY
                  SUPERIOR OBJECT CLASS "Recommendation M.3100": managedElement
                        AND SUBCLASSES ;
                  WITH ATTRIBUTE     iPConfigurationId;
                  CREATE
                  WITH-REFERENCE-OBJECT ,
                  WITH-AUTOMATIC-INSTANCE-NAMING;
                  DELETE
                  ONLY-IF-NO-CONTAINED-OBJECTS;

REGISTERED AS {inSSFNameBinding 10};
```

10.11 Dialled Digit Length a Managed Element

```
dialledDigitLength-managedElement        NAME BINDING
             SUBORDINATE OBJECT CLASS  dialledDigitLength        AND SUBCLASSES;
             NAMED BY
             SUPERIOR OBJECT CLASS "Recommendation M.3100": managedElement
                   AND SUBCLASSES ;
             WITH ATTRIBUTE          portedNumberTriggerId;
             CREATE
             WITH-REFERENCE-OBJECT ,
             WITH-AUTOMATIC-INSTANCE-NAMING;
             DELETE
             ONLY-IF-NO-CONTAINED-OBJECTS;

REGISTERED AS {inSSFNameBinding 11};
```

10.12 Terminating Dialled Digit List a Dialled Digit Length

terminatingDialledDigitList-dialledDigitLength **NAME BINDING**
SUBORDINATE OBJECT CLASS terminatingDialledDigitList **AND SUBCLASSES**;
NAMED BY
SUPERIOR OBJECT CLASS dialledDigitLength
AND SUBCLASSES ;
WITH ATTRIBUTE portedNumberListId;
CREATE
WITH-REFERENCE-OBJECT ,
WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE
ONLY-IF-NO-CONTAINED-OBJECTS;

REGISTERED AS {inSSFNameBinding 12};

10.13 inAuthorization a tdp

inAuthorization-tdp **NAME BINDING**
SUBORDINATE OBJECT CLASS inAuthorization **AND SUBCLASSES**;
NAMED BY
SUPERIOR OBJECT CLASS tdp
AND SUBCLASSES ;
WITH ATTRIBUTE inAuthorizationId;
CREATE
WITH-REFERENCE-OBJECT ,
WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE
ONLY-IF-NO-CONTAINED-OBJECTS;

REGISTERED AS {inSSFNameBinding 13};

10.14 Initiate Call Default Information a Managed Element

initiateCallDefaultInformation-managedElement **NAME BINDING**
SUBORDINATE OBJECT CLASS initiateCallDefaultInformation **AND SUBCLASSES**;
NAMED BY
SUPERIOR OBJECT CLASS "Recommendation M.3100": managedElement
AND SUBCLASSES ;
WITH ATTRIBUTE initiateCallDefaultInformationId;
CREATE
WITH-REFERENCE-OBJECT ,
WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE
ONLY-IF-NO-CONTAINED-OBJECTS;

REGISTERED AS {inSSFNameBinding 14};

10.15 Assist Treatment Configuration a Managed Element

assistTreatmentConfiguration-managedElement **NAME BINDING**
SUBORDINATE OBJECT CLASS assistTreatmentConfiguration **AND SUBCLASSES**;
NAMED BY
SUPERIOR OBJECT CLASS "Recommendation M.3100": managedElement
AND SUBCLASSES ;
WITH ATTRIBUTE assistTreatmentConfigurationId;
CREATE
WITH-REFERENCE-OBJECT ,

WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE
ONLY-IF-NO-CONTAINED-OBJECTS;

REGISTERED AS {inSSFNameBinding 15};

10.16 Ported Number Trigger a Managed Element

portedNumberTrigger-managedElement **NAME BINDING**
SUBORDINATE OBJECT CLASS portedNumberTrigger **AND SUBCLASSES**;
NAMED BY
SUPERIOR OBJECT CLASS "Recommendation M.3100": managedElement
AND SUBCLASSES ;
WITH ATTRIBUTE portedNumberTriggerId;
CREATE
WITH-REFERENCE-OBJECT ,
WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE
ONLY-IF-NO-CONTAINED-OBJECTS;

REGISTERED AS {inSSFNameBinding 16};

10.17 Ported Number List a Managed Element

portedNumberList-managedElement **NAME BINDING**
SUBORDINATE OBJECT CLASS portedNumberList **AND SUBCLASSES**;
NAMED BY
SUPERIOR OBJECT CLASS portedNumberTrigger
AND SUBCLASSES ;
WITH ATTRIBUTE portedNumberListId;
CREATE
WITH-REFERENCE-OBJECT ,
WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE
ONLY-IF-NO-CONTAINED-OBJECTS;

REGISTERED AS {inSSFNameBinding 17};

10.18 Default Charging a Service Feature Control

defaultCharging-serviceFeatureControl **NAME BINDING**
SUBORDINATE OBJECT CLASS defaultCharging **AND SUBCLASSES**;
NAMED BY
SUPERIOR OBJECT CLASS serviceFeatureControl
AND SUBCLASSES ;
WITH ATTRIBUTE defaultChargingId;
CREATE
WITH-REFERENCE-OBJECT ,
WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE
ONLY-IF-NO-CONTAINED-OBJECTS;

REGISTERED AS {inSSFNameBinding 18};

10.19 Exception Handler a Service Feature Control

exceptionHandler-serviceFeatureControl **NAME BINDING**
SUBORDINATE OBJECT CLASS exceptionHandler **AND SUBCLASSES**;
NAMED BY
SUPERIOR OBJECT CLASS serviceFeatureControl
AND SUBCLASSES ;

WITH ATTRIBUTE exceptionHandlerId;
CREATE
WITH-REFERENCE-OBJECT ,
WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE
ONLY-IF-NO-CONTAINED-OBJECTS;

REGISTERED AS {inSSFNameBinding 19};

10.20 SSF Timer a SCF Access

sSFTimer-sCFAccess **NAME BINDING**
SUBORDINATE OBJECT CLASS sSFTimer **AND SUBCLASSES**;
NAMED BY
SUPERIOR OBJECT CLASS sCFAccess
AND SUBCLASSES ;
WITH ATTRIBUTE sSFTimerId;
CREATE
WITH-REFERENCE-OBJECT ,
WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE
ONLY-IF-NO-CONTAINED-OBJECTS;

REGISTERED AS {inSSFNameBinding 20};

10.21 INAP Counter a SSF Application Entity

iNAPCounter-ssfApplicationEntity **NAME BINDING**
SUBORDINATE OBJECT CLASS iNAPCounter **AND SUBCLASSES**;
NAMED BY
SUPERIOR OBJECT CLASS ssfApplicationEntity
AND SUBCLASSES ;
WITH ATTRIBUTE iNAPCounterId;
CREATE
WITH-REFERENCE-OBJECT ,
WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE
ONLY-IF-NO-CONTAINED-OBJECTS;

REGISTERED AS {inSSFNameBinding 21};

10.22 INAP Current Data a SSF Application Entity

iNAPCurrentData-ssfApplicationEntity **NAME BINDING**
SUBORDINATE OBJECT CLASS iNAPCurrentData **AND SUBCLASSES**;
NAMED BY
SUPERIOR OBJECT CLASS ssfApplicationEntity
AND SUBCLASSES ;
WITH ATTRIBUTE "ITU-T Recommendation Q.822":currentDataId;
CREATE
WITH-REFERENCE-OBJECT ,
WITH-AUTOMATIC-INSTANCE-NAMING;
DELETE
ONLY-IF-NO-CONTAINED-OBJECTS;

REGISTERED AS {inSSFNameBinding 22};

10.23 INAP History Data a SSF Application Entity

```
iNAPHistoryData-ssfApplicationEntity      NAME BINDING
                    SUBORDINATE OBJECT CLASS      iNAPHistoryData          AND SUBCLASSES;
                    NAMED BY
                    SUPERIOR OBJECT CLASS ssfApplicationEntity
                          AND SUBCLASSES ;
                    WITH ATTRIBUTE     "ITU-T Recommendation Q.822":HistoryDataId;
                    CREATE
                    WITH-REFERENCE-OBJECT ,
                    WITH-AUTOMATIC-INSTANCE-NAMING;
                    DELETE
                    ONLY-IF-NO-CONTAINED-OBJECTS;

REGISTERED AS {inSSFNameBinding 23};
```

10.24 Assist Treatment Configuration a SSF Application Entity

```
assistTreatmentConfiguration-ssfApplicationEntity    NAME BINDING
                    SUBORDINATE OBJECT CLASS      assistTreatmentConfiguration      AND
                        SUBCLASSES;
                    NAMED BY
                    SUPERIOR OBJECT CLASS ssfApplicationEntity
                          AND SUBCLASSES ;
                    WITH ATTRIBUTE     assistTreatmentConfigurationId;
                    CREATE
                    WITH-REFERENCE-OBJECT ,
                    WITH-AUTOMATIC-INSTANCE-NAMING;
                    DELETE
                    ONLY-IF-NO-CONTAINED-OBJECTS;

REGISTERED AS {inSSFNameBinding 24};
```

10.25 Service Feature Control a SSF Application Entity

```
serviceFeatureControl-ssfApplicationEntity  NAME BINDING
                    SUBORDINATE OBJECT CLASS      serviceFeatureControl      AND SUBCLASSES;
                    NAMED BY
                    SUPERIOR OBJECT CLASS ssfApplicationEntity
                          AND SUBCLASSES ;
                    WITH ATTRIBUTE     serviceFeatureControlId;
                    CREATE
                    WITH-REFERENCE-OBJECT ,
                    WITH-AUTOMATIC-INSTANCE-NAMING;
                    DELETE
                    ONLY-IF-NO-CONTAINED-OBJECTS;

REGISTERED AS {inSSFNameBinding 25};
```

11 Módulo ASN.1

```
ASN1DefinedTypesModule { itu-t(0) recommendation(0) q(17) inmod(1831) informationModel(0) asn1Modules(2) asn1DefinedTypesModule(0)}

DEFINITION IMPLICIT TAGS ::=

BEGIN

-- EXPORTS everything

IMPORTS

ObjectClass, ObjectInstance, Attribute FROM CMIP-1 { joint-iso-ccitt ms (9) cmip (1) modules (0) protocol (3) }
--- see X.711
AdministrativeState, OperationalState, Management Extension FROM Attribute-ASN1Module { joint-iso-ccitt ms(9) smi (3) part2 (2) asn1Module(1) 1}
--- see X.721

BillingCharacteristics, CallTreatment, DefaultCharging, FilteredCallTreatment, FilteringCharacteristics, FilteringCriteria, FilteringTimeOut,GapTreatment, GapInterval, GapDuration, GapCriteria, InbandInfo, InformationToSend, Integer4, MessageID
FROM IN-CS-1-Operations {ccitt recommendations q 1218 modules(0) cs-1-operations(0) version1(0)}
--- see Q.1218

-- OBJECT IDENTIFIERS
managedObjectClass OBJECT IDENTIFIER ::= {informationModel managedObjectClass(3)}
package OBJECT IDENTIFIER ::= {informationModel package(4)}
nameBinding OBJECT IDENTIFIER ::= {informationModel nameBinding(6)}
attribute OBJECT IDENTIFIER ::= {informationModel attribute(7)}
action OBJECT IDENTIFIER ::= {informationModel action(9)}
notification OBJECT IDENTIFIER ::= {informationModel notification(10)}
behaviour OBJECT IDENTIFIER ::= {informationModel behaviour(11)}
notification OBJECT IDENTIFIER ::= {informationModel notification(10)}


-- ASN.1 Types


AuthenticationCode ::= OCTET STRING

BearerCapability ::= CHOICE {
                     bearerCap     [0] OCTET STRING,
                     tmr           [1] OCTET STRING}

-- bearerCap is encoded according to Q.763 or Q.931 and
-- tmr (transmission medium requirement parameter) is encoded according to ITU-T Q.763

CalledPartyNumber ::= OCTET STRING    -- Encoded according to ITU-T Q.763

CalledPartyNumberList ::= SET OF CalledPartyNumber

CallingPartyNumber ::= OCTET STRING    -- Encoded according to ITU-T Q.763

CallingPartyNumberList ::= SET OF CallingPartyNumber

Cause ::= OCTET STRING

-- Cause values encoded according to ITU-T Q.763.
-- Cause and Location values encoded according to ITU-T Q.850.

ChargeProfile ::= OCTET STRING -- Operator Specific
```

```
CongestionAction ::= ENUMERATED {
        terminateCall                   (0),
        playAnnouncement                (1),
        playAnnouncementAndTerminate    (2)}

ControlType::=      ENUMERATED {
            sCPInitiated        (0),
            oSInitiated         (1) }


Count ::= INTEGER

DialledDigitLength::= INTEGER           -- Specifies the length of a dialled digit string

DigitString ::= OCTET STRING            -- Encoded in accordance with ITU-T Q.763

DefaultChargingAction ::= CHOICE {
                    specificAction      [1]ENUMERATED {
                      continueWithNormalCharging    (0),
                      freeCall                      (1),
                      releaseCall                   (2)}
                    tariffReference     [2]NameType }


DisplayInformation ::= IA5String (SIZE (minDisplayInformationLength ..maxDisplayInformationLength))

ExceptionHandling ::=

INAPException ::= ENUMERATED {
                      continueCall                  (0),
                      playAnnouncement              (1),
                      playAnnouncementAndContinueCall (2),
                      releaseCall                   (3),
                      playAnnouncementAndReleaseCall (4)}


INEscape ::=  SEQUENCE OF DigitString

FeatureActivation ::= OCTET STRING -- Encoded in accordance with ITU-T Q.763

ForwardCallIndicators ::= OCTET STRING (SIZE (2))

        -- Indicates the Forward Call Indicators. Refer to ITU-T Q.771 for encoding.


GapOnService ::= SEQUENCE OF ServiceKey

GapIndicators ::= SEQUENCE {
        duration        [0] Duration,
        gapInterval     [1] Interval }


IPCapabilityList ::=    SET OF IPCapabilities

IPCapabilities ::= OCTET STRING (SIZE (minIPSSPCapabilitiesLength ..
                    maxIPSSPCapabilitiesLength))
-- defined by network operator. Indicates the SRF resources available at the SSP.
```

```
ObservedEventId ::= ENUMERATED {
        dialogueInitiationAttempt                          (1),
        dialogueInitiatedWithInitialDP                     (2),
        dialogueInitiatedWithAssistRequestInstructions     (3),
        dialogueInitiatedWithServiceFilteringResponse      (4),
        dialogueInitiatedWithInitiateCallAttempt           (5),
        dialogueInitiatedWithCallGap                       (6),
        dialogueInitiatedWithServiceFiltering              (7),
        dialogueCongestion                                 (8),
        tC-Message not accepted                            (9),
        sSFInitiatedDialoguesProcessed                     (10),
        sCFInitiatedDialoguesProcessed                     (11),
        errorOrRejectMessagesSentBy SSP                    (12),
        errorOrRejectMessagesFromSCP                       (13),
        timeoutOnSCFResponse                               (14),
        dialoguesAbortedBySCPOrRemoteTC                    (15),
        dialoguesAbortedBySSP                              (16),
        dialoguesInProgress                                (17)}

ObservedSCFAccessList ::= SET OF ObjectInstance

ServiceKey    ::= Integer4

TdpCriteria ::= CHOICE {bearerCapability                   [0] BearerCapability,
                        callingPartyNumber                 [1] CallingPartyNumber,
                        calledPartyNumber                  [2] CalledPartyNumber,
                        classOfService                     [3] ClassOfService,
                        cause                              [4] Cause,
                        digitString                        [5] DigitString,
                        facilityInformation                [6] FacilityInformation,
                        featureActivation                  [7] FeatureActivation,
                        natureOfAddress                    [8] NatureOfAddress,
                        stringLength                       [9] StringLength }

Tdp1Criteria ::= CHOICE {  callingPartyNumber              [1] CallingPartyNumber,
                        calledPartyNumber                  [2] CalledPartyNumber,
                        classOfService                     [3] ClassOfService}

Tdp2Criteria ::= CHOICE {  callingPartyNumber              [1] CallingPartyNumber,
                        calledPartyNumber                  [2] CalledPartyNumber,
                        digitString                        [5] DigitString,
                        stringLength                       [9] StringLength }

Tdp3Criteria ::= CHOICE {  callingPartyNumber              [1] CallingPartyNumber,
                        calledPartyNumber                  [2] CalledPartyNumber,
                        digitString                        [5] DigitString,
                        facilityInformation                [6] FacilityInformation,
                        featureActivation                  [7] FeatureActivation,
                        natureOfAddress                    [8] NatureOfAddress,
                        stringLength                       [9] StringLength }

Tdp4Criteria ::= CHOICE {  callingPartyNumber              [1] CallingPartyNumber,
                        cause                              [4] Cause,
                        featureActivation                  [7] FeatureActivation}

Tdp5Criteria ::= CHOICE {  cause                           [4] Cause,
                        featureActivation                  [7] FeatureActivation}

Tdp6Criteria ::= CHOICE {  cause                           [4] Cause,
                        featureActivation                  [7] FeatureActivation}
```

```
Tdp7Criteria ::= CHOICE {       facilityInformation     [6] FacilityInformation,
                                featureActivation       [7] FeatureActivation}

Tdp8Criteria ::= CHOICE {       facilityInformation     [6] FacilityInformation,
                                featureActivation       [7] FeatureActivation}

Tdp9Criteria ::= CHOICE {       cause                   [4] Cause,
                                featureActivation       [7] FeatureActivation}

Tdp10Criteria ::= CHOICE {      cause                   [4] Cause,
                                featureActivation       [7] FeatureActivation}

Tdp11Criteria ::= CHOICE {      cause                   [4] Cause,
                                featureActivation       [7] FeatureActivation}

Tdp12Criteria ::= CHOICE {      callingPartyNumber      [1] CallingPartyNumber,
                                classOfService         [3] ClassOfService}

Tdp13Criteria ::= CHOICE {      callingPartyNumber      [1] CallingPartyNumber,
                                cause                   [4] Cause,
                                featureActivation       [7] FeatureActivation}

Tdp14Criteria ::= CHOICE {      callingPartyNumber      [1] CallingPartyNumber,
                                cause                   [4] Cause,
                                featureActivation       [7] FeatureActivation}

Tdp15Criteria ::= CHOICE {      facilityInformation     [6] FacilityInformation,
                                featureActivation       [7] FeatureActivation}

Tdp16Criteria ::= CHOICE {      facilityInformation     [6] FacilityInformation,
                                featureActivation       [7] FeatureActivation}

Tdp17Criteria ::= CHOICE {      cause                   [4] Cause,
                                featureActivation       [7] FeatureActivation}

Tdp18Criteria ::= CHOICE {      cause                   [4] Cause,
                                featureActivation       [7] FeatureActivation}

TDP1Filter ::= CMISFilter       -- restricted to using TDP1Criteria

TDP2Filter ::= CMISFilter       -- restricted to using TDP2Criteria

TDP3Filter ::= CMISFilter       -- restricted to using TDP3Criteria

TDP4Filter ::= CMISFilter       -- restricted to using TDP4Criteria

TDP5Filter ::= CMISFilter       -- restricted to using TDP5Criteria

TDP6Filter ::= CMISFilter       -- restricted to using TDP6Criteria

TDP7Filter ::= CMISFilter       -- restricted to using TDP7Criteria

TDP8Filter ::= CMISFilter       -- restricted to using TDP8Criteria

TDP9Filter ::= CMISFilter       -- restricted to using TDP9Criteria

TDP10Filter ::= CMISFilter      -- restricted to using TDP10Criteria

TDP11Filter ::= CMISFilter      -- restricted to using TDP11Criteria

TDP12Filter ::= CMISFilter      -- restricted to using TDP12Criteria

TDP13Filter ::= CMISFilter      -- restricted to using TDP13Criteria
```

```
TDP14Filter ::= CMISFilter          -- restricted to using TDP14Criteria

TDP15Filter ::= CMISFilter          -- restricted to using TDP15Criteria

TDP16Filter ::= CMISFilter          -- restricted to using TDP16Criteria

TDP17Filter ::= CMISFilter          -- restricted to using TDP17Criteria

TDP18Filter ::= CMISFilter          -- restricted to using TDP18Criteria

TdpMode ::=  ENUMERATED {
                notification    (1),
                request         (2) }
TimerValue ::= INTEGER -- time specified in milliseconds

Tone ::=  SEQUENCE {
            toneID      [0] Integer4,
            duration    [1] Integer4        OPTIONAL
        }
-- The duration specifies the length of the tone in seconds; value 0 indicates infinite duration.

TerminatingDialledDigitList ::= SEQUENCE OF DigitString

TriggerAssociation::= SET OF ObjectInstance
Version ::= GraphicString


END -- end of ASN1 DefinedTypesModule
```

APÉNDICE I

Producciones importadas de la Recomendación Q.1218

```
BillingChargingCharacteristics ::= OCTET STRING

CallTreatment ::= CHOICE {
        informationToSend       [0] InformationToSend,
        releaseCause            [1] Cause,
        both                    [2] SEQUENCE {
                informationToSend       [0] InformationToSend,
                releaseCause            [1] Cause
                }
        }
-- The default value for Cause is the same as in ISUP.

DefaultCharging  ::= CHOICE {
        pSTNChargingLevel       [0] BOOLEAN,
        freeOfCharge            [1] BOOLEAN,
        callReject              [2] BOOLEAN,
        inChargeLevels          [3] SET OF OCTET STRING -- Operator Specific

FilteredCallTreatment ::= SEQUENCE {
            sFBillingChargingCharacteristics    [0] SFBillingChargingCharacteristics,
            informationToSend                   [1] InformationToSend OPTIONAL,
            maximumNumberOfCounters             [2] MaximumNumberOfCounters OPTIONAL,
            releaseCause                        [3] Cause OPTIONAL
        }
-- If releaseCause is not present, the default value is the same as the ISUP cause value decimal 31.
-- If informationToSend is present, the call will be released after the end of the announcement with the
-- indicated or default releaseCause. If maximumNumberOfCounters is not present, ServiceFilteringResponse
-- will be sent with CountersValue ::= SEQUENCE SIZE (0) OF CounterAndValue
```

```
FilteringCharacteristics ::= CHOICE {
                interval                [0] INTEGER (-1..32000),
                numberOfCalls           [1] Integer4
                }
-- Indicates the severity of the filtering and the point in time when the ServiceFilteringResponse is to be
-- sent. If = interval, every interval of time the next call leads to an InitialDP and a
-- ServiceFilteringResponse is sent to the SCF. The interval is specified in seconds. If = NumberOfCalls,
-- every N calls the Nth call leads to an InitialDP and a ServiceFilteringResponse is sent to the SCF. If
-- ActivateServiceFiltering implies several counters (filtering on several dialled numbers), the
-- numberOfCalls would include calls to all the dialled numbers.

FilteringCriteria ::=       CHOICE {
                serviceKey              [2] ServiceKey,
                addressAndService       [30] SEQUENCE {
                calledAddressValue      [0] Digits,
                serviceKey              [1] ServiceKey,
                callingAddressValue     [2] Digits OPTIONAL,
                locationNumber          [3] LocationNumber OPTIONAL
                        }
        }
-- In case calledAddressValue is specified, the numbers to be filtered are from calledAddressValue up to
-- and including calledAddressValue +maximumNumberOfCounters-1. The last two digits of calledAddressValue
-- cannot exceed 100-maximumNumberOfCounters.

FilteringTimeOut ::= CHOICE {
            Duration        [0] Duration,
            StopTime        [1] DateAndTime
            }
-- Indicates the maximum duration of the filtering. When the timer expires, a ServiceFilteringResponse is
-- sent to the SCF.
GapCriteria ::= CHOICE {

            calledAddressValue          [0] Digits,

            gapOnService                [2] GapOnService,

            calledAddressAndService     [29] SEQUENCE {

                calledAddressValue      [0] Digits,

                serviceKey              [1] ServiceKey

            }

                callingAddressAndService    [30] SEQUENCE {

                callingAddressValue         [0] Digits,

                serviceKey                  [1] ServiceKey,

                locationNumber              [2] LocationNumber OPTIONAL

                }

            }

-- Both calledAddressValue and callingAddressValue can be incomplete numbers, in the sense that a limited
-- amount of digits can be given. For the handling of numbers starting with the same digit string refer to
-- the detailed procedure of the CallGap operation in Clause 9.}
```

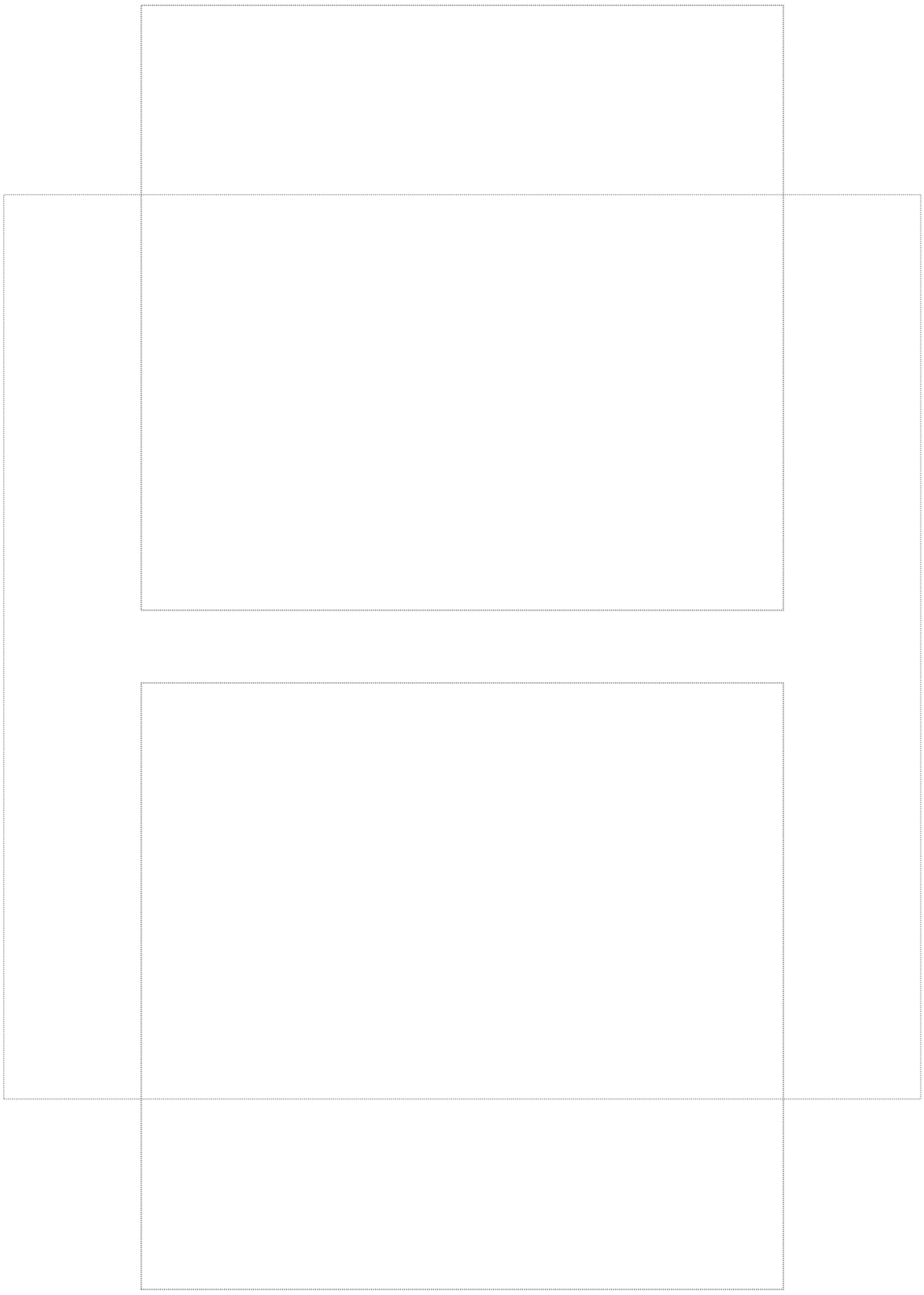
```
InbandInfo ::= SEQUENCE {
                messageID               [0] MessageID,
                numberOfRepetitions     [1] INTEGER (1..127) OPTIONAL,
                duration                [2] INTEGER (0..32767) OPTIONAL,
                interval                [3] INTEGER (0..32767) OPTIONAL
                        }
        -- interval is the time in seconds between each repeated announcement. Duration is the total amount of time
        -- in seconds, including repetitions and intervals. The end of announcement is either the end of duration
        -- or numberOfRepetitions, whatever comes first. Duration with value 0 indicates infinite duration.

InformationToSend ::= CHOICE {
        inbandinfo              [0] InbandInfo,
        tone                    [1] Tone,
        displayInformation      [2] DisplayInformation}

Integer4  ::=  INTEGER (0..2147483647)

MessageID ::=       CHOICE {
            elementaryMessageID         [0] Integer4,
            text                        [1] SEQUENCE {
                    messageContent              [0] IA5String (SIZE(minMessageContentLength ..
                                                maxMessageContentLength)),
                    attributes                  [1] OCTET STRING (SIZE (minAttributesLength ..
                                                maxAttributesLength)) OPTIONAL
            },
            elementaryMessageIDs        [29] SEQUENCE SIZE (1..numOfMessageIDs) OF Integer4,
            variableMessage             [30] SEQUENCE {
                elementaryMessageID             [0] Integer4,
                variableParts                   [1] SEQUENCE SIZE(1..5) OF VariablePart
}

END
```



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Impreso en Suiza
Ginebra, 2001